

# Obstructive Sleep Apnea Hands On

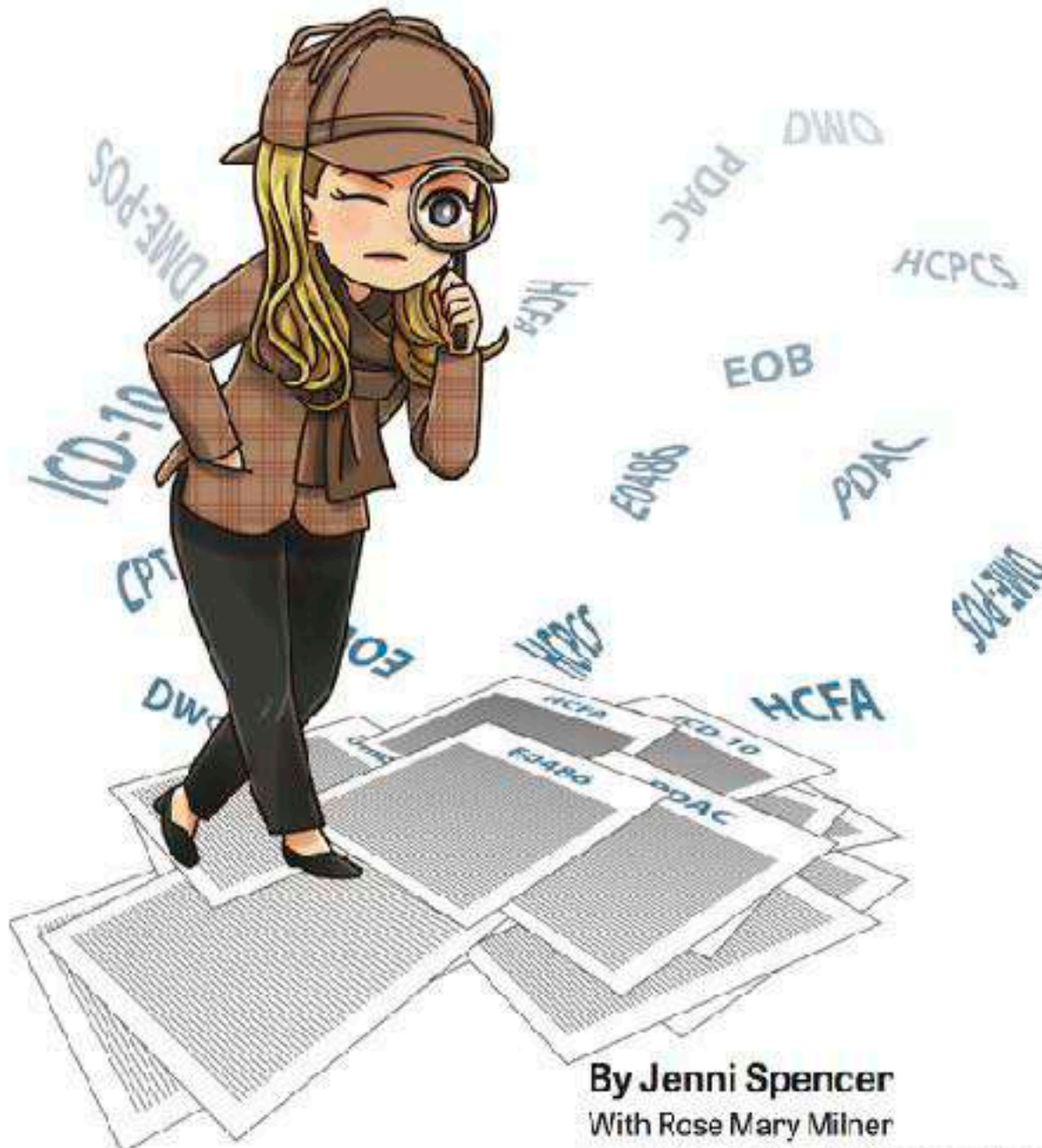
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# Medical Insurance Billing for Oral Appliance Therapy

## The MYSTERY of Dental Sleep Medicine Billing REVEALED

(for smart, ethical and moral dental teams who want to help lots of people and keep their dentist out of jail)



**By Jenni Spencer**  
With Rose Mary Milner  
and Foreword by Dr. Jamison Spencer





# Dental Sleep Medicine: From Screening to Final Follow Up

# Dental Sleep Medicine: Screening and Referral for A Sleep Evaluation



## Sleep Screening Questionnaire

Please answer the questions below to help us assess the possibility of a sleep disorder which may be related to your dental and overall health. There is often a correlation between grinding of the teeth, TMJ disorders, breakdown of the teeth and sleep disorders. Sleep apnea may also increase your risk for many different health conditions including heart attack and stroke. If you are here with your child (under 16), please fill out the lower portion marked "For children only" for your child.

Name: \_\_\_\_\_ Height: \_\_\_\_\_ Weight: \_\_\_\_\_

### Epworth Sleepiness Scale

How likely are you to doze off or fall asleep in the following situations, in contrast to just feeling tired?

- 0 = I would never doze      2 = I have a moderate chance of dozing  
1 = I have a slight chance of dozing      3 = I have a high chance of dozing

Situation	Chance of Dozing
1. Sitting and reading	_____
2. Watching TV	_____
3. Sitting inactive in a public place (e.g. a theater or a meeting)	_____
4. As a passenger in a car for an hour without a break	_____
5. Lying down to rest in the afternoon when circumstances permit	_____
6. Sitting and talking to someone	_____
7. Sitting quietly after lunch without alcohol	_____
8. In a car while stopped for a few minutes in traffic	_____
<b>Total Score</b>	_____

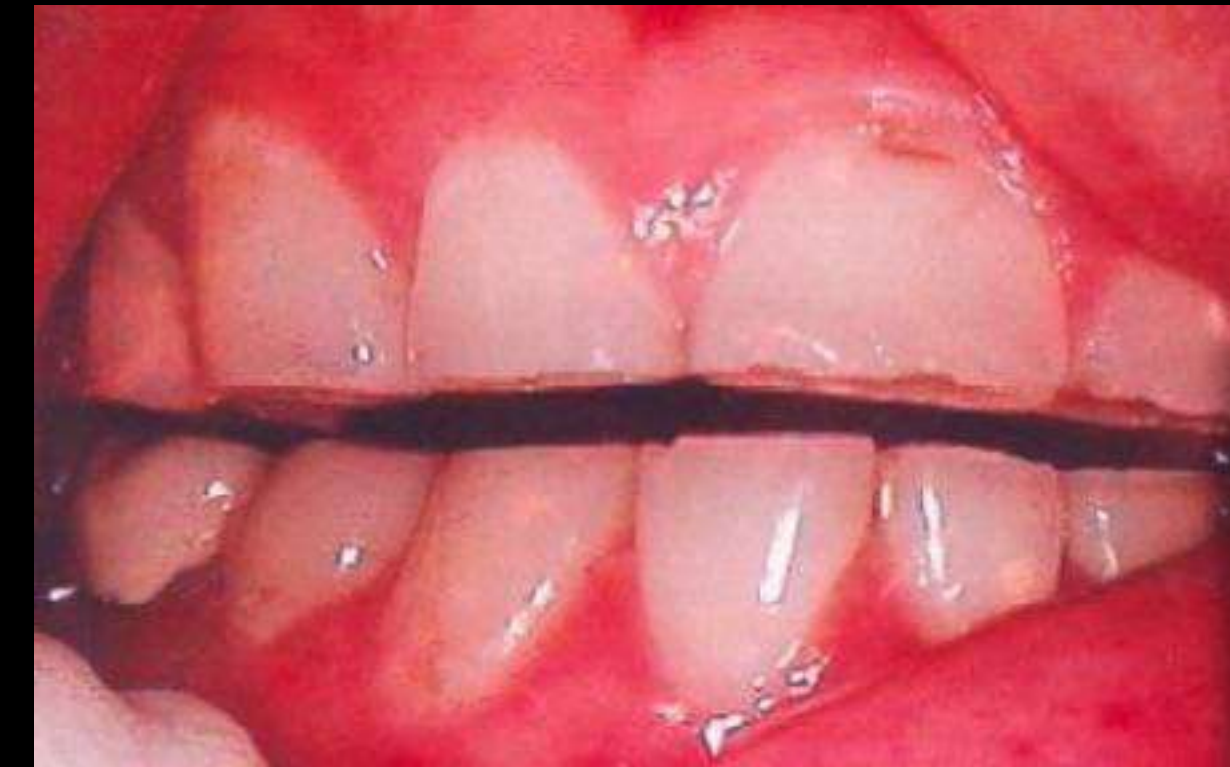
Have you ever been diagnosed with:	Yes	No
1. Impaired Cognition (i.e. difficulty concentrating or thinking)	<input type="checkbox"/>	<input type="checkbox"/>
2. Mood Disorders/Depression	<input type="checkbox"/>	<input type="checkbox"/>
3. Insomnia	<input type="checkbox"/>	<input type="checkbox"/>
4. Hypertension (high blood pressure)	<input type="checkbox"/>	<input type="checkbox"/>
5. Ischemic Heart Disease (Coronary Artery Disease/Atherosclerosis)	<input type="checkbox"/>	<input type="checkbox"/>
6. History of Stroke	<input type="checkbox"/>	<input type="checkbox"/>
7. Sleep Apnea	<input type="checkbox"/>	<input type="checkbox"/>
If yes: Did you try to use CPAP	<input type="checkbox"/>	<input type="checkbox"/>
8. TMJ problems significant enough to require treatment	<input type="checkbox"/>	<input type="checkbox"/>
9. Gastric Reflux (GERD) or Heartburn	<input type="checkbox"/>	<input type="checkbox"/>

Are you aware of (or have you been told):	Yes	No
1. Snoring on a regular basis	<input type="checkbox"/>	<input type="checkbox"/>
2. Feeling tired or fatigued on a regular basis	<input type="checkbox"/>	<input type="checkbox"/>
3. Clenching or grinding your teeth (bruxism)	<input type="checkbox"/>	<input type="checkbox"/>
4. Having frequent headaches	<input type="checkbox"/>	<input type="checkbox"/>
5. Your neck size being > 17 inches (male) or > 16 inches (female)	<input type="checkbox"/>	<input type="checkbox"/>
6. Anyone in your family having sleep apnea	<input type="checkbox"/>	<input type="checkbox"/>
7. Stopping breathing when sleeping/awakening with a gasp	<input type="checkbox"/>	<input type="checkbox"/>

### For children only (filled out by parent or guardian)

Are you aware of your child:	Yes	No
1. Snoring/noisy breathing while sleeping	<input type="checkbox"/>	<input type="checkbox"/>
2. Grinding his or her teeth	<input type="checkbox"/>	<input type="checkbox"/>
3. Wetting the bed	<input type="checkbox"/>	<input type="checkbox"/>
4. Having difficulty in school/learning	<input type="checkbox"/>	<input type="checkbox"/>
5. Being treated for ADD or ADHD	<input type="checkbox"/>	<input type="checkbox"/>
6. Breathing primarily through their mouth	<input type="checkbox"/>	<input type="checkbox"/>
7. Having frequent nightmares/night terrors	<input type="checkbox"/>	<input type="checkbox"/>
8. Having frequent ear aches	<input type="checkbox"/>	<input type="checkbox"/>

Dental Exam Findings: ☐ Evidence of Bruxism   ☐ Scalloping of the tongue   ☐ Crowded airway  
☐ Tori or Bone Loss   ☐ Anterior wear   ☐ Retrognathia / Class II

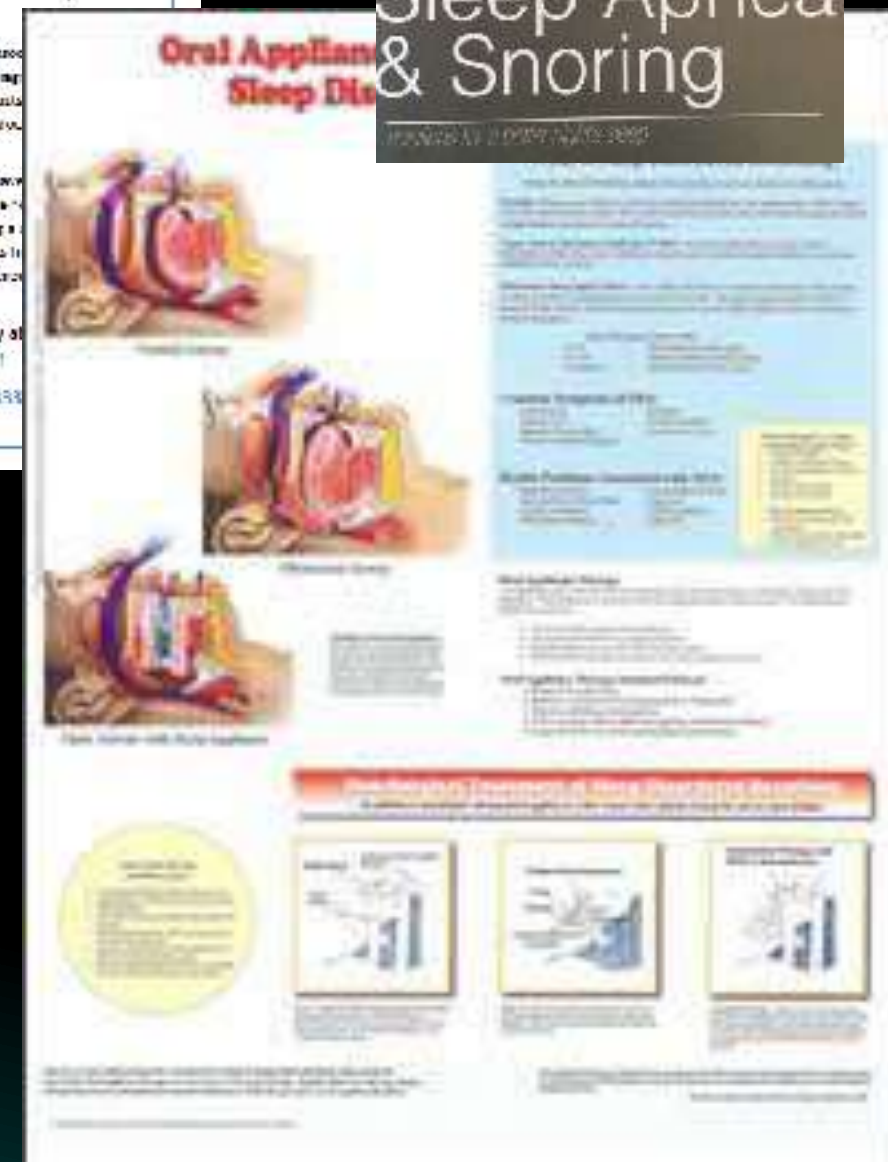
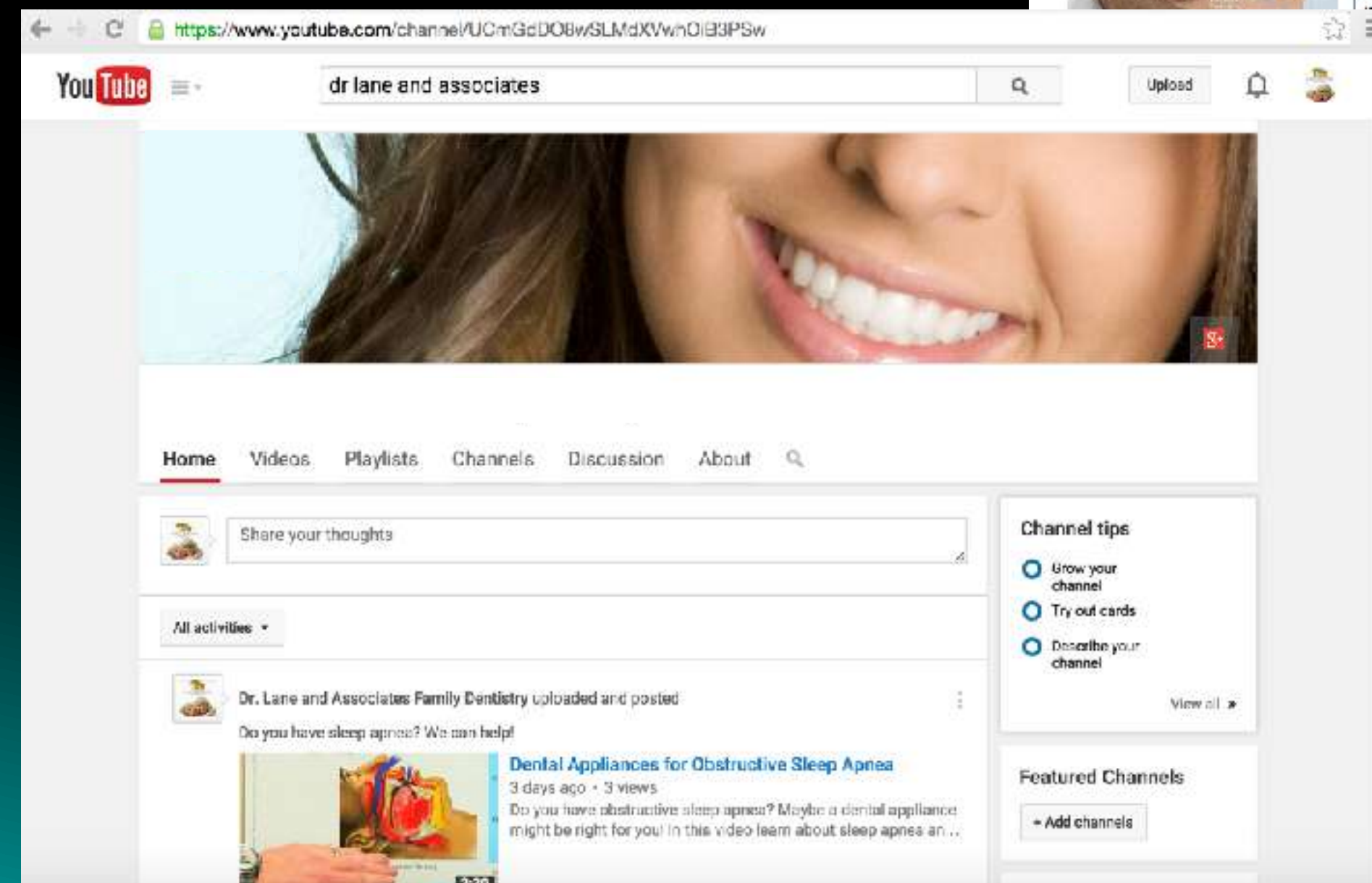
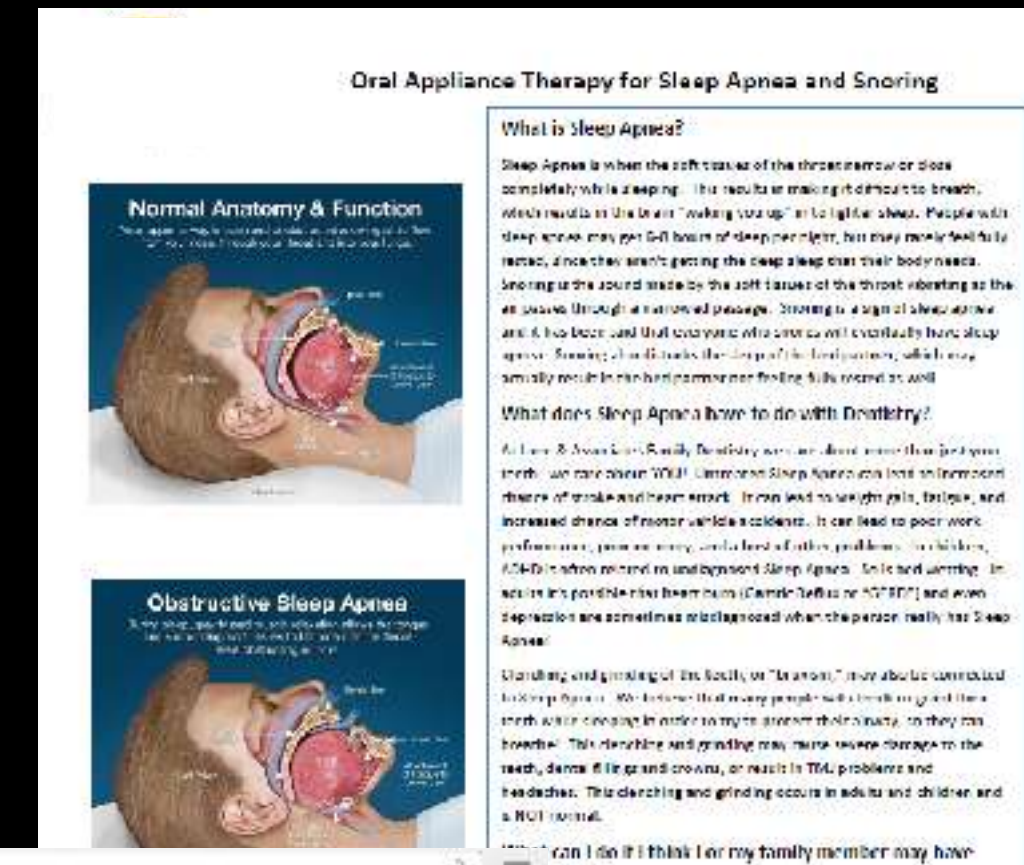


**ANY** of the above

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# Explain How Sleep Relates to Dentistry



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# Help the patient **FEEL** the importance



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# Referral

Refer to a SLEEP DOCTOR or FAMILY DOCTOR and let them make the decision as to an in lab study or home study.

“Would you be open to having an initial consult with a sleep doctor to see if your (bruxism, poor sleep, tiredness, TMJ, etc.) might be related to a sleep issue?”

- **Will you PROMISE me you will do this?**
- **Have the front desk call the sleep doctor's office and set up the appointment while the patient is at the front desk.**





# Then What?

- Help the patient get in for an evaluation with a sleep doctor (or their family doctor) and follow up to see if the patient actually moves forward.
- Once a sleep evaluation has been performed, either:
  - The patient was found to NOT have sleep apnea, and perhaps a night guard is indicated.
  - The patient was found to have sleep apnea, and the medical doctor would like them to try CPAP first.
  - The patient was found to have sleep apnea, an oral appliance has been prescribed by the medical doctor, and they return for exam, financials and records (usually with insurance being pre-approved in advance).



# The Low Hanging Fruit

- The FASTEST path to fitting an oral appliance is finding a patient who:
  - Has already had a sleep study
  - Already tried CPAP (or wouldn't even try it), and
  - Didn't like (couldn't tolerate) CPAP, or would like to have an oral appliance for when they can't use their CPAP



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A close-up photograph of a dental examination. A dental mirror is being used to inspect the lingual side of the upper teeth. A dental probe is also visible, positioned near the lower teeth. The teeth are white and healthy-looking, and the gums are pink.

# Next Step...Exam and Records



- Pano or FMX (or CBCT)
  - WNL or findings
- Range of motion
  - Maximum opening (48-52mm)
  - Left Lateral (8-12mm)
  - Right Lateral
  - Protrusive (4-10mm)
- Overjet, Overbite, Midline deviation
- Joint Noises
  - Crepitus: None, Right, Left, Bilateral
  - Popping: None, Right, Left, Bilateral
  - Mild, Moderate or Severe
  - Reduced in Centric Relation

**Clinical Examination Form**

Patient Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_ Date of Exam: \_\_\_\_\_

Radiographic Findings: Pano \_\_\_\_\_ FMX \_\_\_\_\_ WNL \_\_\_\_\_

Range of Motion: MO \_\_\_\_\_ mm LL \_\_\_\_\_ mm RL \_\_\_\_\_ mm Pro \_\_\_\_\_ mm

Overjet \_\_\_\_\_ mm Overbite \_\_\_\_\_ mm Midline \_\_\_\_\_ mm R / L

Joint Noises: Crepitus: N R L B Mild \_\_\_\_\_ Moderate \_\_\_\_\_ Severe \_\_\_\_\_  
 Popping: N R L B Mild \_\_\_\_\_ Moderate \_\_\_\_\_ Severe \_\_\_\_\_ Reduced in CR \_\_\_\_\_

Periodontal Condition: \_\_\_\_\_

Mallampati I II III IV Occlusion Left: I II III Right: I II III Division Left: I II Right: I II

Missing Teeth: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

Epworth Sleepiness Score: \_\_\_\_\_ GASP Questionnaire Score: \_\_\_\_\_ STOPBANG: \_\_\_\_\_

=====

Sleep Study Data:  
☐ Obstructive Sleep Apnea (OSA): ☐ mild (5-15) ☐ moderate (15-30) ☐ severe (>30)  
☐ Sleep Related Bruxism  
☐ Upper Airway Resistance/Snoring  
☐ Other \_\_\_\_\_

AHI of \_\_\_\_\_ and/or an RDI of \_\_\_\_\_

=====

Treatment Plan:  
 EMA DORSAL HERBST MDSA Easy Airway OTHER \_\_\_\_\_

The following treatment information was discussed:

☐ Potential consequences of sleep-related breathing disorders if left untreated  
☐ Treatment alternatives for sleep-related breathing disorders  
☐ Benefit of treatment recommendations  
☐ Potential risks and complications related to treatment recommendations

Notes: \_\_\_\_\_

\_\_\_\_\_  
 Assistant Initials Dentist's Name Dentist's Signature



Normal



RDD



NRDD



Internal  
Derangements



DJD

Dr. Per-Lennart  
Westesson and Dr.  
Lars Eriksson  
University of Lund,  
Sweden.

*Jamison Spencer*



**Clinical Exam**

Patient Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_ Date of Exam: \_\_\_\_\_

Radiographic Findings: Pano \_\_\_\_\_ FMX \_\_\_\_\_ WNL \_\_\_\_\_

Range of Motion: MO \_\_\_\_\_ mm LL \_\_\_\_\_ mm RL \_\_\_\_\_ mm Pro \_\_\_\_\_ mm

Overjet \_\_\_\_\_ mm Overbite \_\_\_\_\_ mm Midline \_\_\_\_\_ mm R / L

Joint Noises: Crepitus: N R L B Mild \_\_\_\_\_ Moderate \_\_\_\_\_ Severe \_\_\_\_\_  
Popping: N R L B Mild \_\_\_\_\_ Moderate \_\_\_\_\_ Severe \_\_\_\_\_ Reduced in CR \_\_\_\_\_

Periodontal Condition: \_\_\_\_\_

Mallampati I II III IV Occlusion Left: I II III Division Left: I II  
Right: I II III Right: I II

Missing Teeth: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

Epworth Sleepiness Score: \_\_\_\_\_ GASP Questionnaire Score: \_\_\_\_\_ STOPBANG: \_\_\_\_\_

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AHI of \_\_\_\_\_ and/or an RDI of \_\_\_\_\_

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Treatment Plan:  
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The following treatment information was discussed:

☐ Potential consequences of sleep-related breathing disorders if left untreated  
☐ Treatment alternatives for sleep-related breathing disorders  
☐ Benefit of treatment recommendations  
☐ Potential risks and complications related to treatment recommendations

Notes: \_\_\_\_\_

\_\_\_\_\_  
Assistant Initials Dentist's Name Dentist's Signature

- **Periodontal Condition**

- **Mallampati I, II, III or IV**

- **Can you see down their throat? I is wide open, IV is can't see anything.**

- **Occlusion**

- **Class II has either division 1 or 2. Division 1 is a large overjet. Division 2 is a deep bite. Class I and class III do NOT have divisions.**

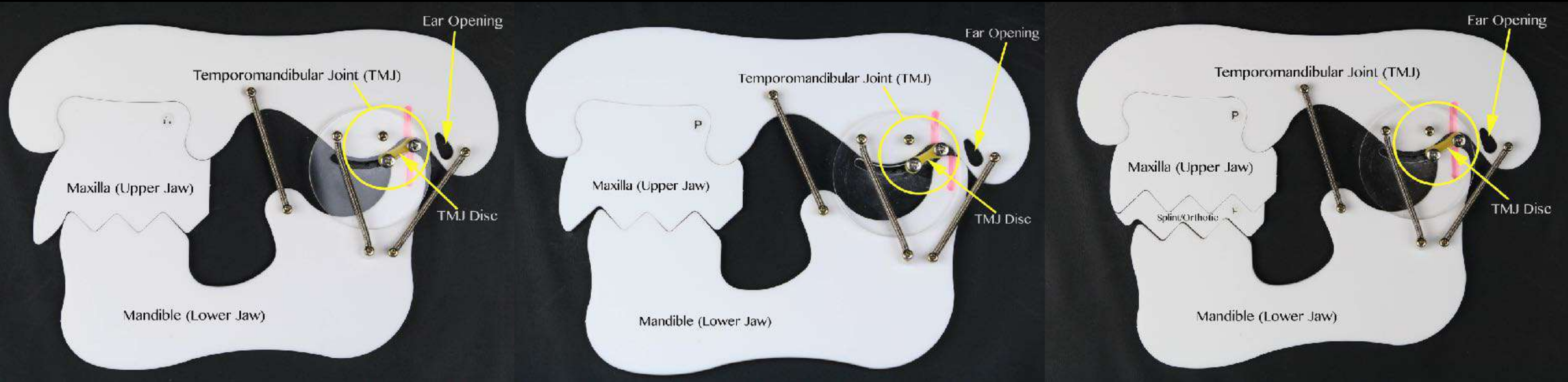
- **Missing Teeth**

- **Epworth**

- **Get this from the screening form**



# Explanation of Joint Noises



- Joint anatomy videos on youtube
- Explain clicking using plastic model (Highly Recommended!!)



# Custom Appliance Selection

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# Types of Appliances

- Anterior point stop (TAP, Silencer, MDSA, etc.)
- Push (Herbst, SUAD, etc.)
- Pull (EMA, Silent Night, etc.)
- Adjustable Mono block (Moses, PM Positioner, Klearway, etc.)
- Interlocking (Somnomed, Dorsal, Respire, etc.)
- Temporary/Trial (Boil and Bites, Silent Sleep, etc.)





# Anterior Pull/Push





# Bilateral Push





# Bilateral Pull



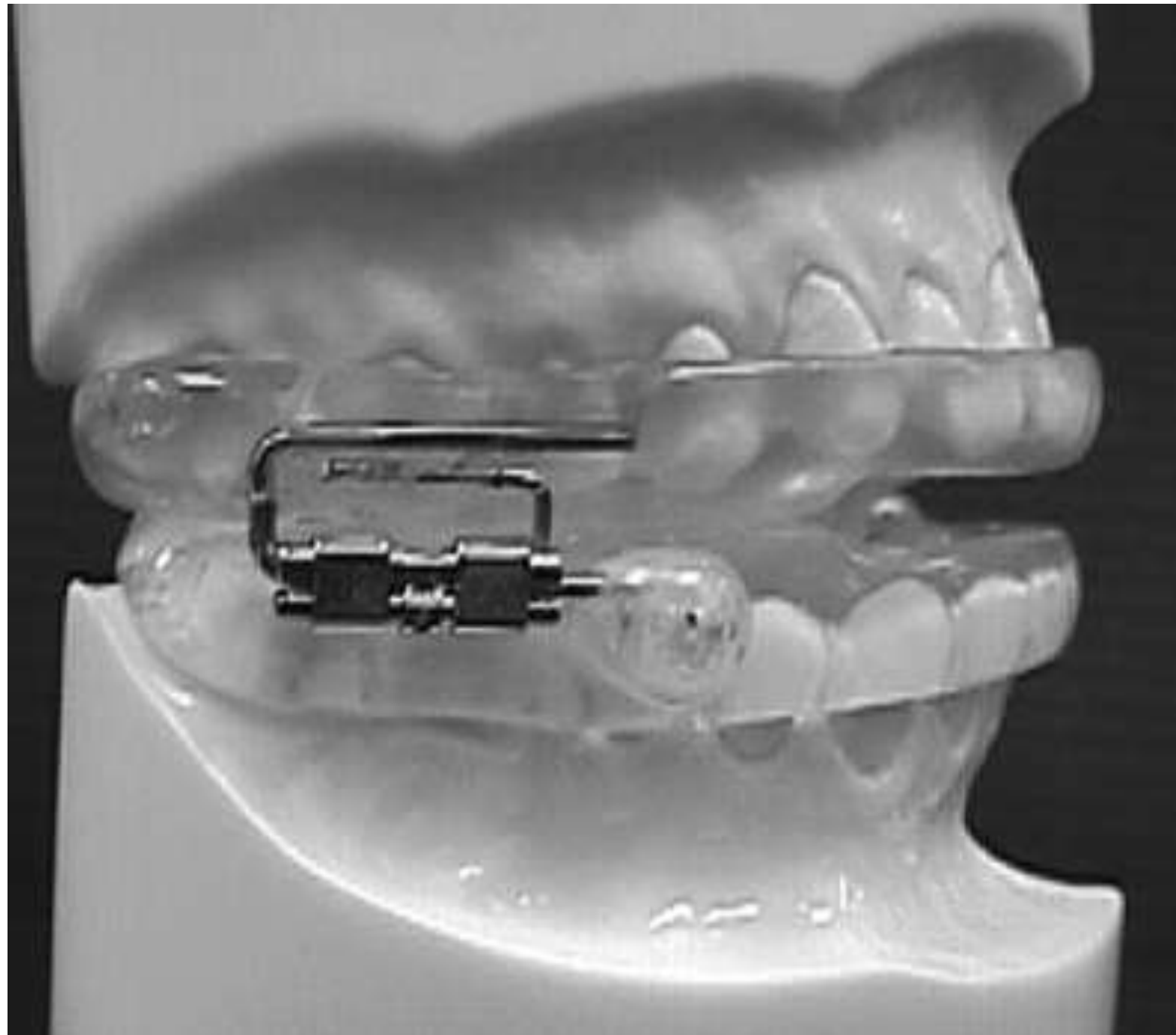


# Interlocking



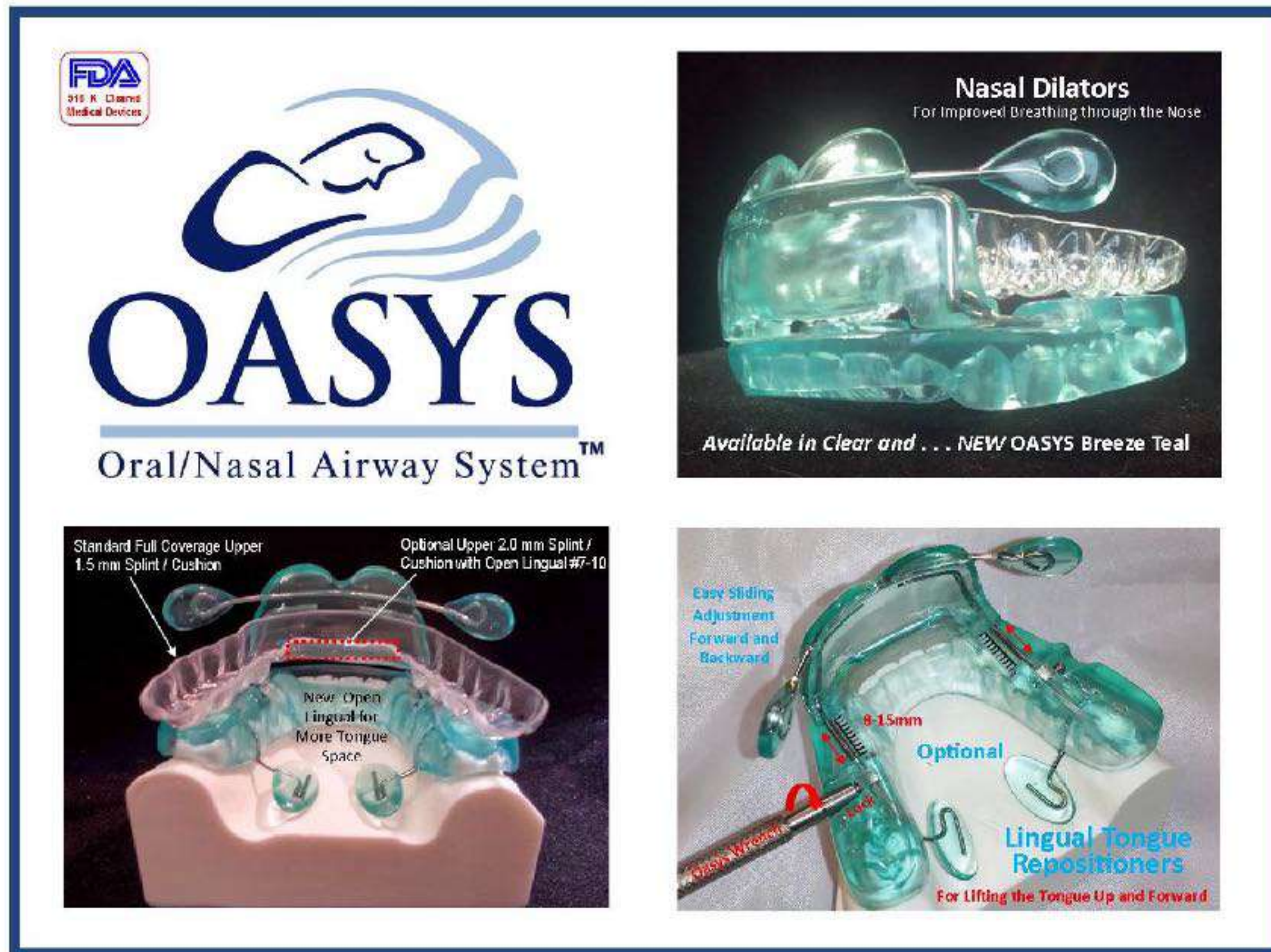


# Mono Block





# Unique



**The FULL-BREATH SOLUTION™**



# Temporary/Trial



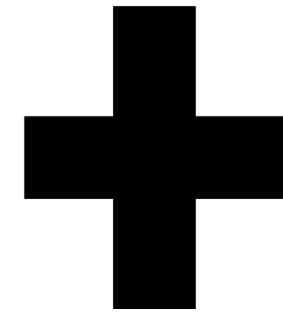


# “Dr. Spencer’s Starting 4 + 1”





# The Best Combination Therapy?



**Whatever oral appliance  
you feel is the best choice  
for the patient**

**Whatever CPAP mask  
works best for the patient**



# Informed Consent

Discuss tooth movement

“World’s greatest flosser”

Discuss possible bite changes

Check the occlusion every night at

Patient **MUST** sign the Informed  
Conset Form

*Jamison Spencer*

## Informed Consent for the Treatment of Snoring and Sleep Apnea

You have been diagnosed by your physician as requiring treatment for snoring and/or obstructive sleep apnea. This condition may pose serious health risks since it disrupts normal sleep patterns and can reduce normal blood oxygen levels, which in turn may result in excessive daytime sleepiness, irregular heartbeats, high blood pressure, heart attack, stroke and/or other life threatening health problems.

### What Is Oral Appliance Therapy?

Oral appliance therapy for snoring/obstructive sleep apnea attempts to assist breathing during sleep by keeping the tongue and jaw in a forward position. Oral appliance therapy has effectively treated thousands of people. However, there are no guarantees that it will be effective for you, since everyone is different and there are many factors influencing the upper airway during sleep. It is important to recognize that even when the therapy is effective, there may be a period of time before the appliance functions maximally. During this time you may still experience the symptoms related to your snoring and/or sleep apnea. A post adjustment sleep study (in lab or home) is necessary to objectively assure effective treatment.

### Side Effects and Complications of Oral Appliance Therapy

Published studies show that short-term effects of oral appliances may include excessive salivation, difficulty swallowing (with appliance in place), sore jaws, sore teeth, jaw joint pain, dry mouth, gum pain, loosening of teeth and short term bite changes (how the upper and lower teeth come together). There are also reports of dislodgement of ill-fitting dental restorations. Most of these side effects are minor and resolve quickly on their own or with minor adjustment of the appliance. Long-term complications include bite changes that may be permanent resulting from tooth movement or jaw joint repositioning. These complications may or may not be fully reversible once appliance therapy is discontinued. If not, restorative treatment or orthodontic intervention may be required for which you will be responsible.

Follow up visits with the provider of your oral appliance are mandatory to ensure proper fit and allow an examination of your mouth to assure a healthy condition. If unusual symptoms or discomfort occur that fall outside the scope of this consent, or if pain medication is required to control discomfort, it must cease using the appliance until you are evaluated further.

### Alternative Treatment for Snoring and Sleep Apnea

Other accepted treatments for snoring and sleep apnea include behavioral modifications, positive airway pressure (CPAP) and various surgeries. It is your decision to have chosen oral appliance therapy to treat your snoring and sleep apnea and you are aware that it may not be completely effective for you. It is your responsibility to report the occurrence of side effects and to address any questions to this provider's office. Failure to treat sleep apnea may increase the likelihood of significant medical complications.

If you have any comfort issues/concerns with your appliance **CALL OUR OFFICE RIGHT AWAY! DO NOT WAIT!** It is your responsibility to inform us of your concerns. There are options that we can provide to help you. If you understand the explanation of the proposed treatment, have asked this provider any questions you may have about this form or treatment, please sign and date this form below.

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

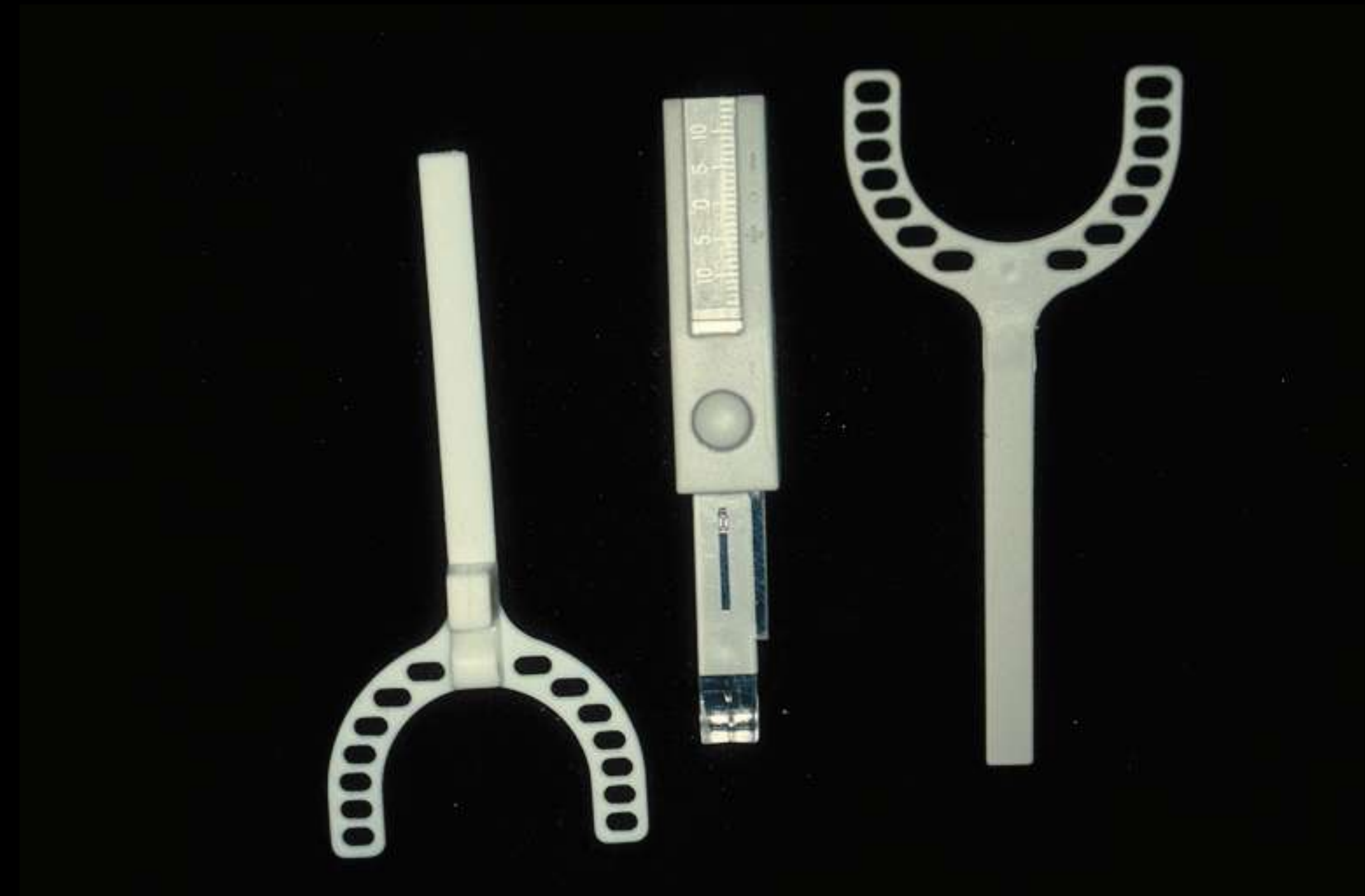
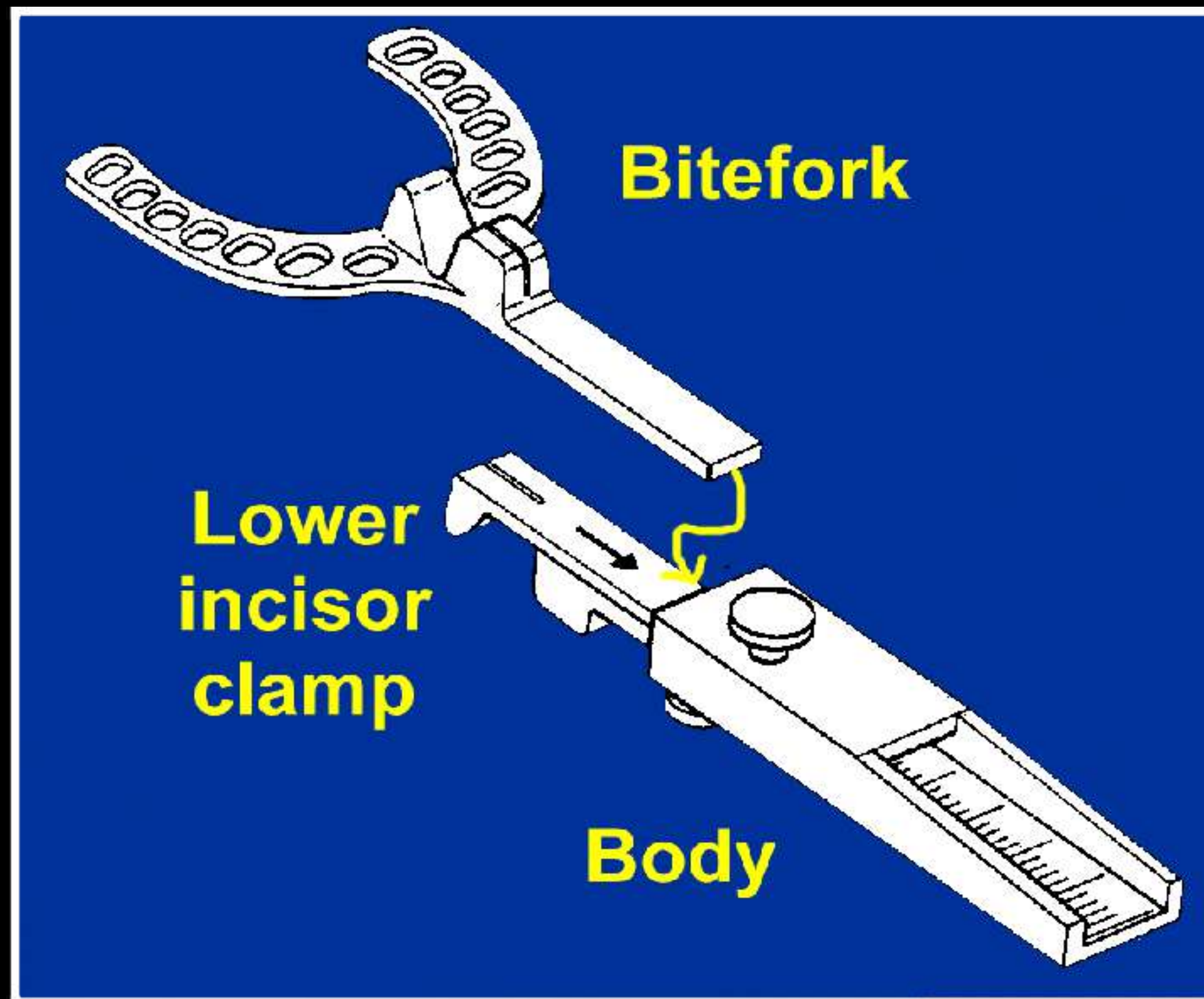


# Bite Registration

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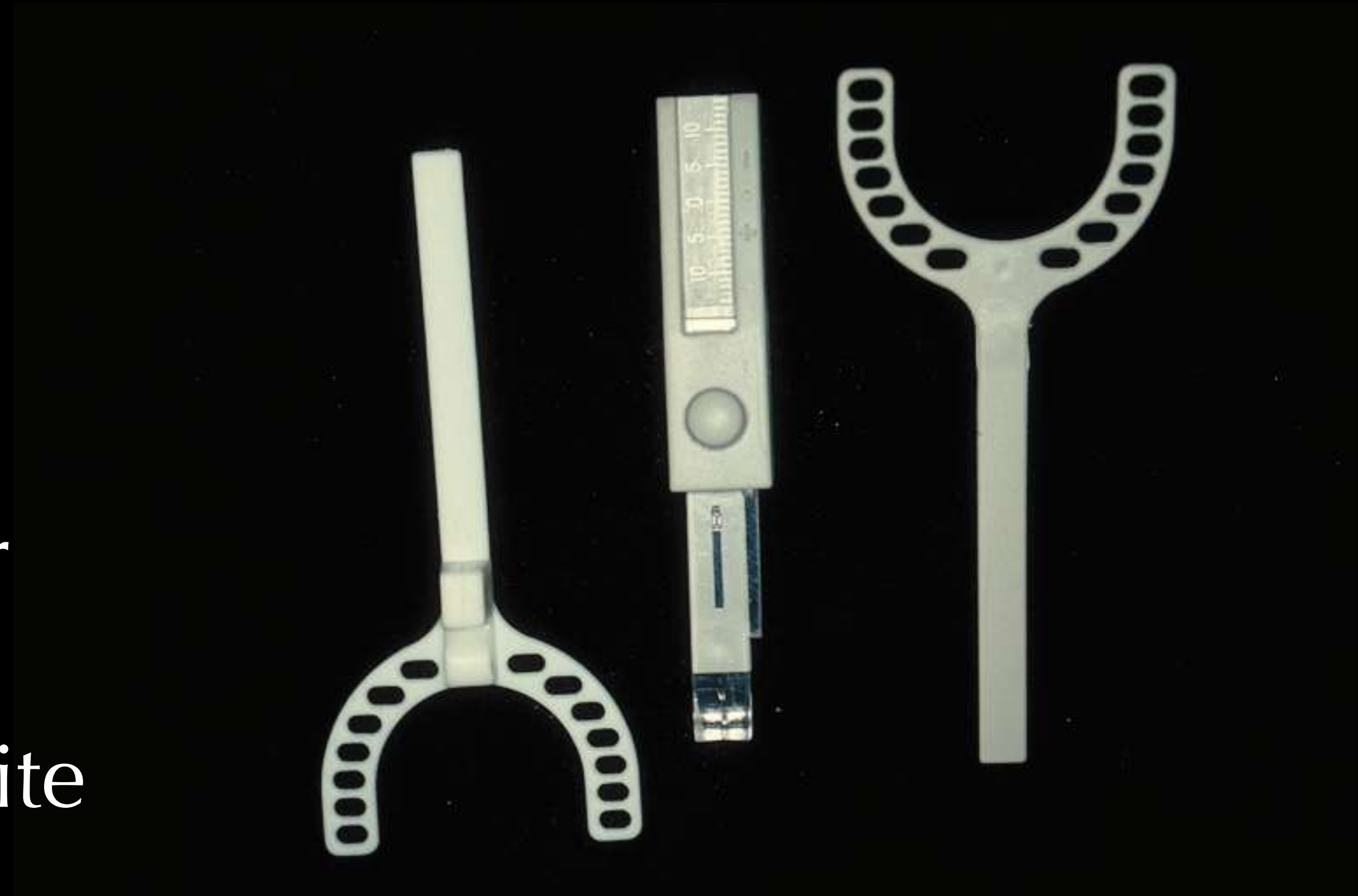
# The George Gauge





# George Gauge

- Maxillary Bite Forks
  - 2 mm thick (gray)
  - 5 mm thick (white)
- Use 2 mm in ALL DEEP BITE cases, and almost every other case too.
- Use 5 mm in anterior open bite cases.





# George Gauge

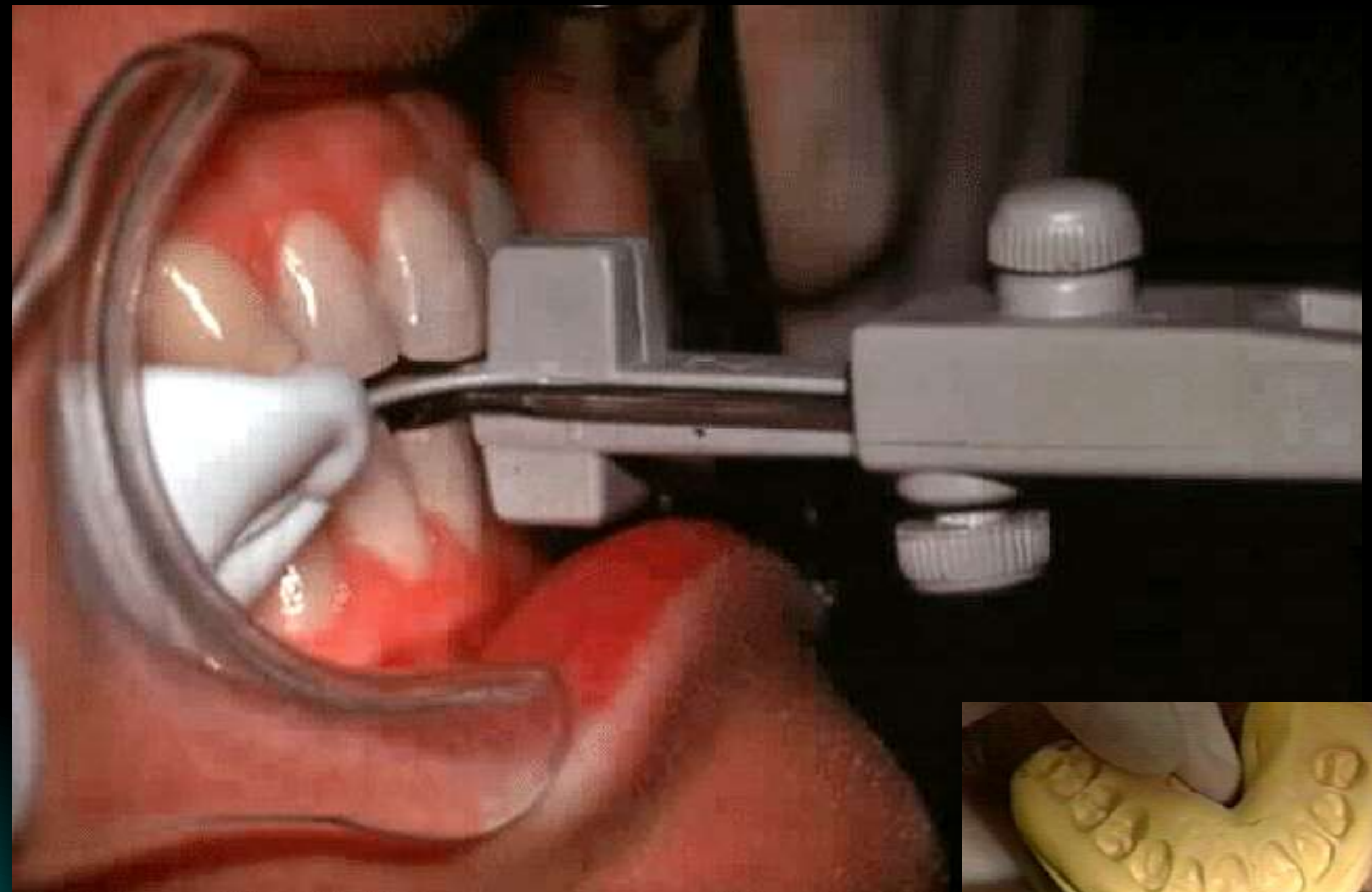
Use a fast setting bite registration material.

Make sure the midline is NOT shifted by the gauge.

Take the bite registration in a **COMFORTABLY PROTRUDED POSITION!** Don't worry about a percentage of "maximum protrusion." For patients with a normal overjet, this will be at or slightly behind "end to end."

After you've taken the bite registration, remove the handle and try the bite registration in the mouth, having the patient open and close in to it several times. Confirm that the registration does NOT deflect the jaw to one side.

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# Send to the lab

- Remove the fork from the George Gauge handle and send the fork.
- Take EXCELLENT PVS impressions. It is important that the distal of the 2nd molar, when present, be captured. Typically it will not be possible to capture the distal of present 3rd molars.
- Take a “maximum intercuspation” occlusal record so that you have a “before we started” record of where the occlusion was. Send this to the lab as well.
- Once returned from the lab, KEEP THE PVS IMPRESSIONS, MODELS AND BITE REGISTRATIONS FOREVER!!!



# Bite Registration Workshop





A close-up photograph of a person's hand holding a clear, custom-made dental aligner tray. The tray is curved to fit the shape of a dental arch and has several small, clear attachments or buttons bonded to the inner surface. The background is dark, making the hand and the transparent tray stand out.

Next Step...  
Fitting

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# Prior to the Appointment

- Check that you have the appliance (at least 1 day in advance)
- Check that the appliance looks nice and is what you are expecting (appliance type, all hard or soft/hard, etc.)
- Look at the models on which the appliance was made
  - Are there broken teeth (there usually are)? If so, the appliance may be tight in those areas.
  - Does the appliance seem tight or loose on the models?
- Could some bulk be reduced from the appliance in advance of the appointment?



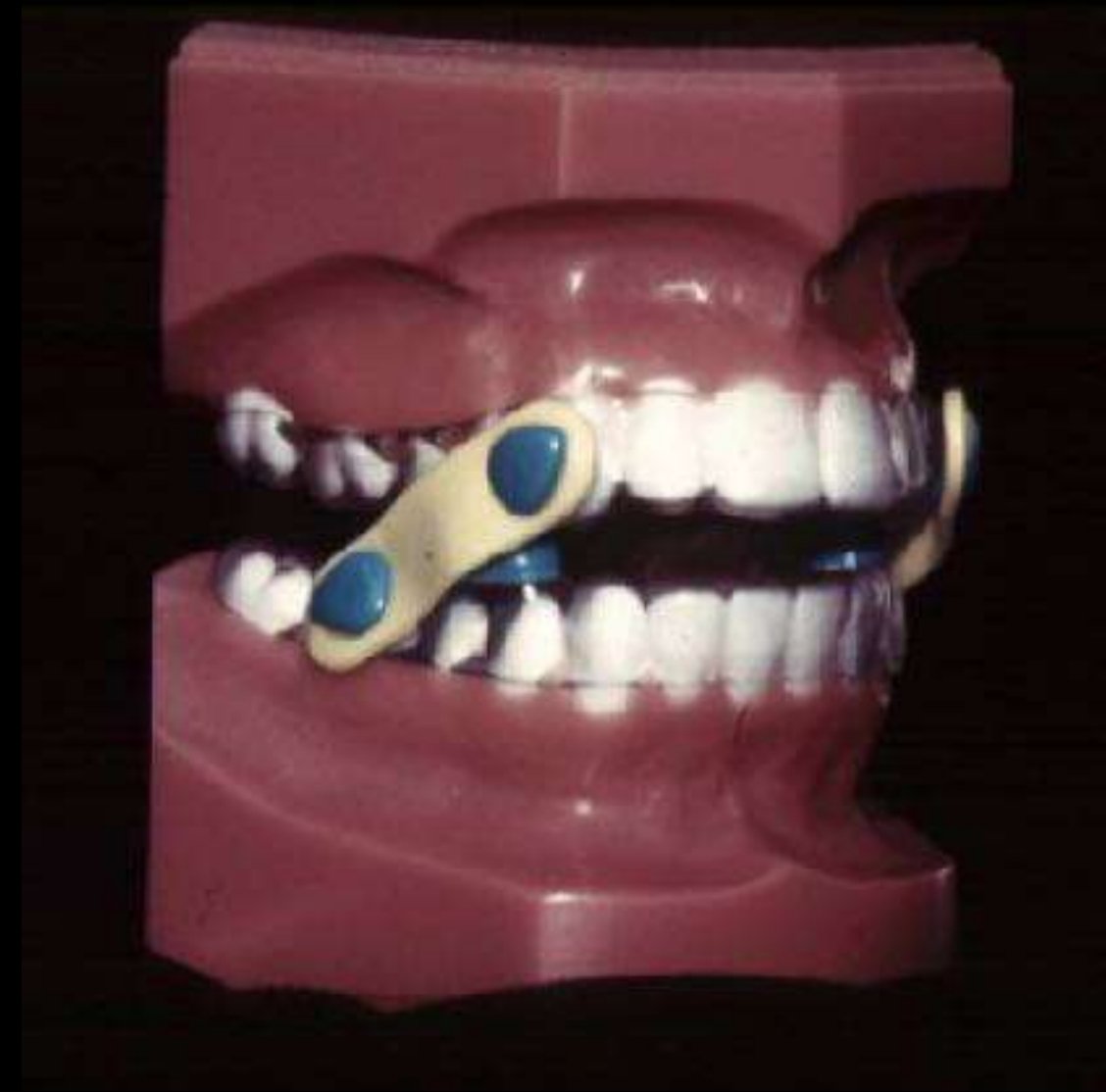
# Before Fitting the Appliance

1. Tell the patient what you are going to do.
2. Tell the patient that the appliance will most likely be VERY tight and may be uncomfortable, but that this sensation will likely reduce within a few seconds.
3. Tell the patient that you will adjust any spots that are uncomfortable, and that it is VERY important that they let you know if ANYTHING is bothering them before they leave (“because if it bothers you at all here it will bother you a lot more at 2am!”)
4. Tell the patient that it usually takes most patients a few weeks to get used to wearing the appliance through the night.

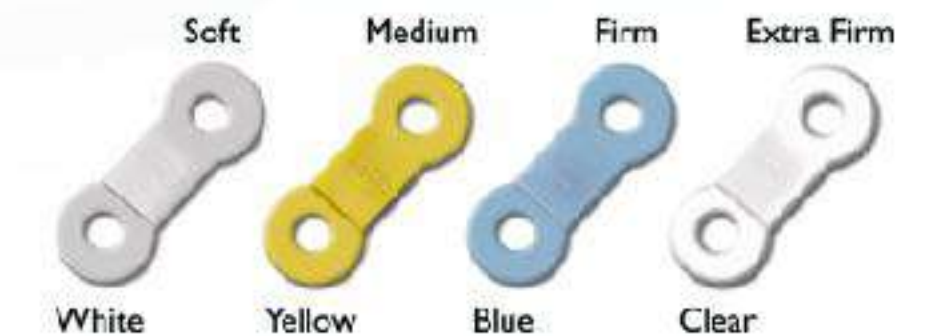


# Fitting the EMA

1. Fit the upper tray. After a few seconds ask “is there any place too tight, uncomfortable, rough or pokey?” If so, have the patient point with one finger where, and adjust that area. Repeat this till the patient says it feels OK.
2. Fit the lower tray in the same manner.
3. Insert both the upper and the lower and check to see if the posterior pads are hitting on both sides. It does NOT need to be perfectly even, but the patient should feel that they touch on both sides, AND you should visually see that they do.
4. Add the 20 Yellow band. This is the band that correlates with your George Gauge bite registration. Ask the patient, “does that feel like it is holding your jaw slightly forward? It’s holding your jaw too far forward? Or it doesn’t feel like it’s doing anything?” The goal of the initial band is for it to feel like “it is holding the jaw slightly forward” and to be comfortable. If the patient feels it is too far forward, move to a 21 Yellow band. If the patient feels it is not doing anything, move to a 19 Yellow band.



Each EMA elastic strap comes in four different strengths, indicated by color.



The shorter the EMA elastic strap, the farther the mandible is advanced.

	DISTANCE BETWEEN EMA BUTTONS	
	27 mm	25 mm
EMA® STRAP LENGTH	AMOUNT OF ADVANCEMENT	
21 mm	6 mm	4 mm
20 mm	7 mm	5 mm
19 mm	8 mm	6 mm
18 mm	9 mm	7 mm
17 mm	10 mm	8 mm
16 mm	11 mm	9 mm
15 mm	12 mm	10 mm
14 mm	13 mm	
13 mm	14 mm	

Myerson recommends a button distance of 27 mm unless the patient can only advance 9 mm or fewer in which case 25 mm distance is recommended.







# Fitting the SomnoMed

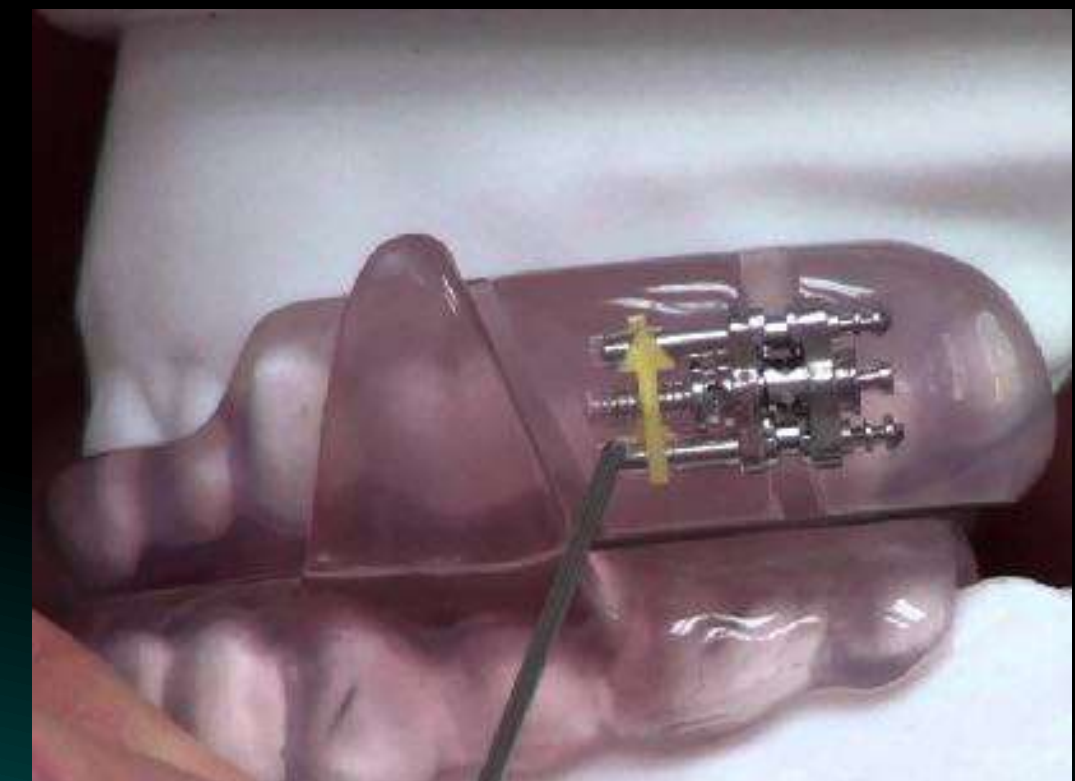
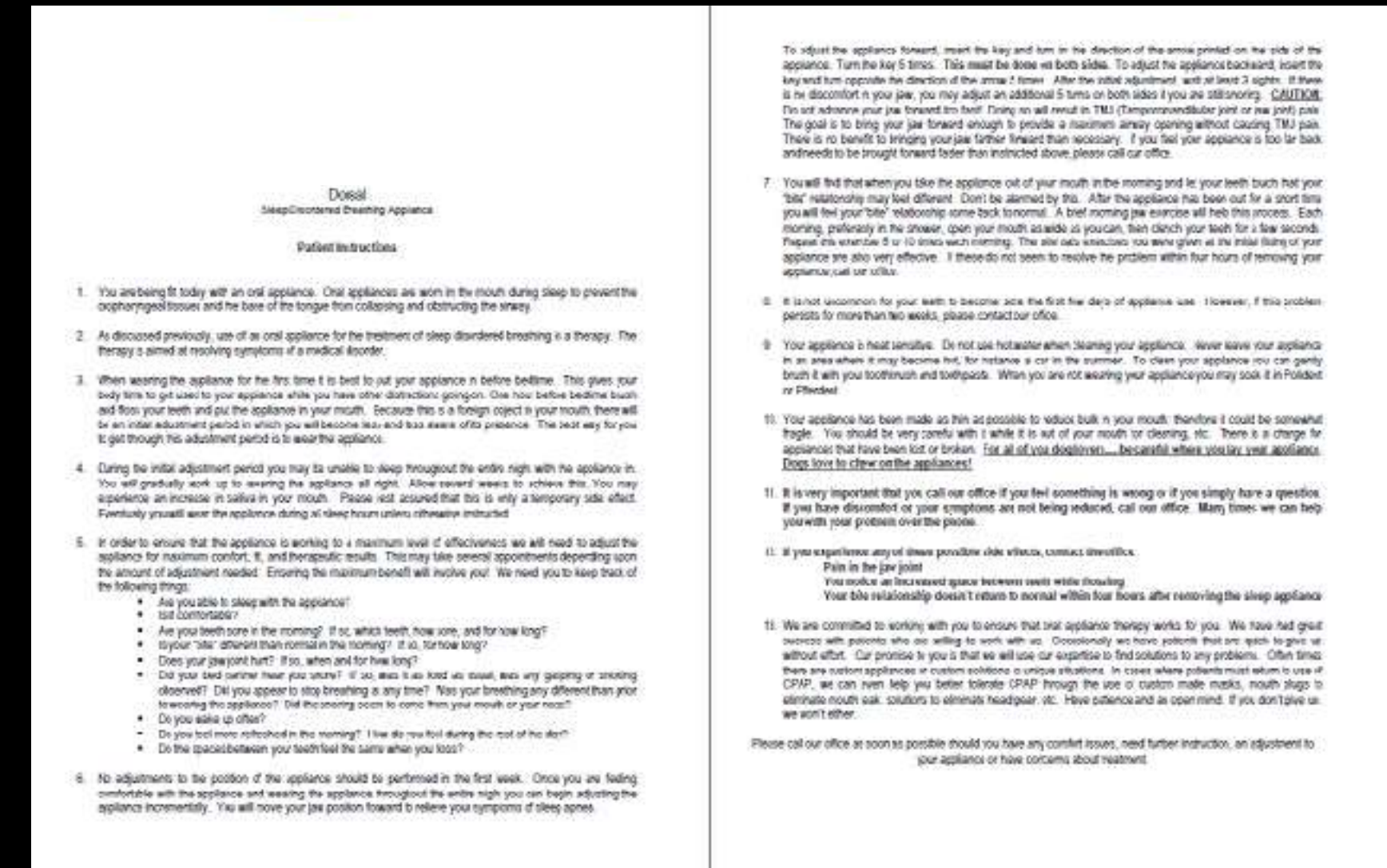
1. Fit the upper tray. After a few seconds ask “is there any place too tight, uncomfortable, rough or pokey?” If so, have the patient point with one finger where, and adjust that area. Repeat this till the patient says it feels OK.
2. Fit the lower tray in the same manner.
3. Insert both the upper and the lower and check to see if the appliance is hitting on both sides in the posterior. It does NOT need to be perfectly even, but the patient should feel that they touch on both sides, AND you should visually see that they do.
4. See if the “fins” are engaging the adjustment pad. There should not be an open space. If there is, open the screw (turn with the arrow) to bring the pad toward the fin. Once there is contact, ask the patient “does that feel like it is holding your jaw slightly forward? It’s holding your jaw too far forward? Or it doesn’t feel like it’s doing anything?” The goal of the initial position is for it to feel like “it is holding the jaw slightly forward” and to be comfortable. If the patient feels it is too far forward, turn the screw back (against the arrow) 5 turns. If the patient feels it is not doing anything, turn the screw forward (with the arrow) 5 turns. Repeat until the patient says it feels like “it is holding the jaw slightly forward and is comfortable.”





# Fitting the SomnoMed

5. Show the patient how to adjust the screw. Give them 1 of the 2 “wrenches.” You keep the other.
6. Explain to the patient that “with the arrow” will bring the jaw farther forward, opening the airway, and “opposite the arrow” will take the jaw backward, possibly making the appliance more comfortable. The instructions explain when and how the patient is to adjust the screw.
7. Explain to the patient that follow up is CRITICAL with this appliance (since they can adjust it themselves and may not feel the need to return for follow up).



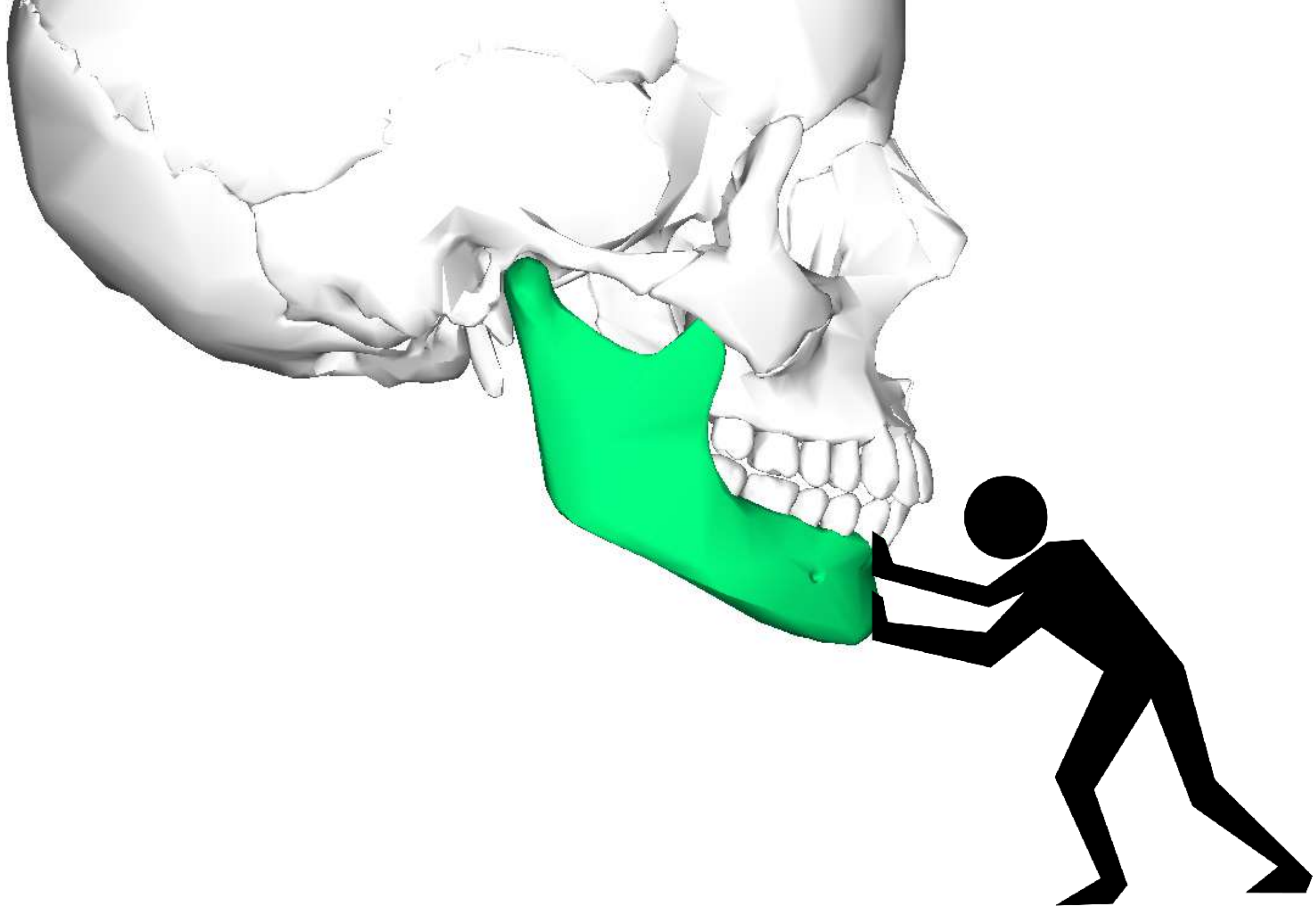
*Jamison Spencer*



# Fitting a “Morning Repositioner”

*Jamison Spencer*





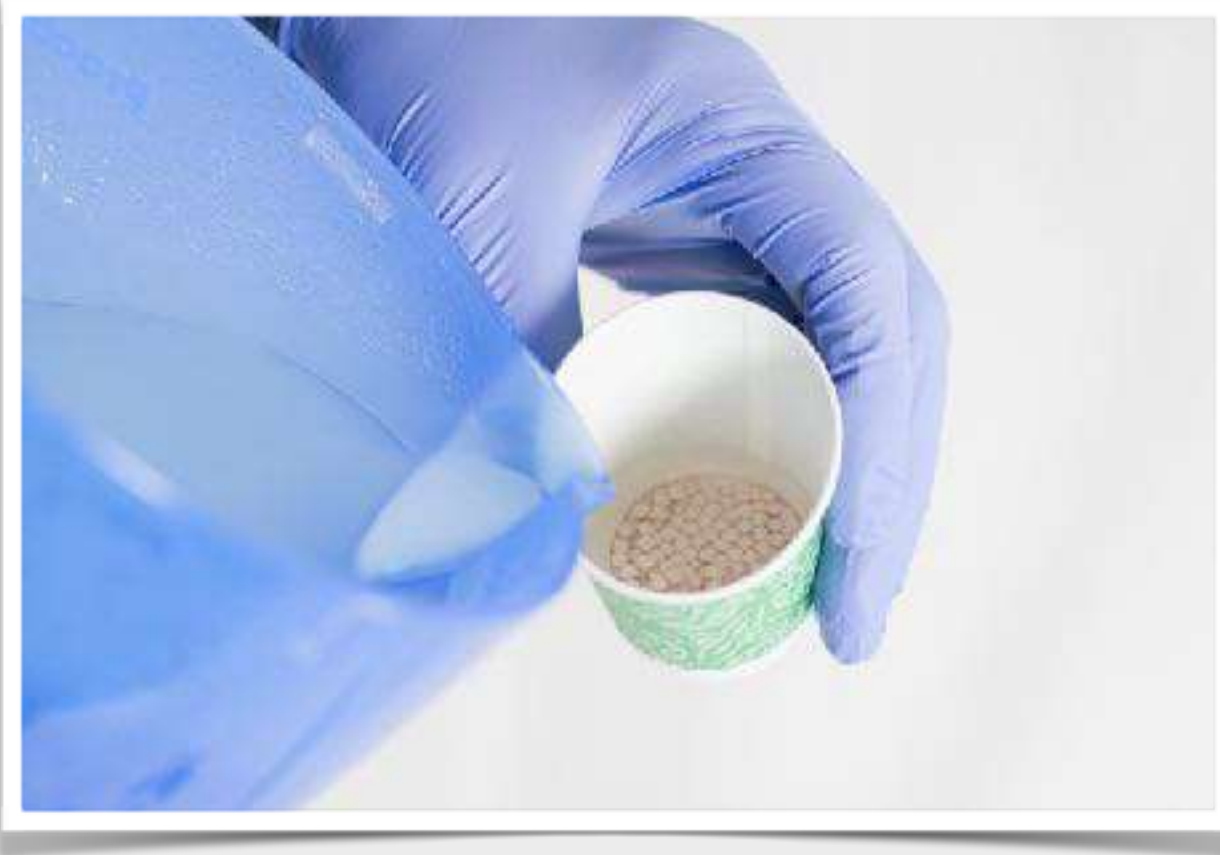


# Morning Repositioner



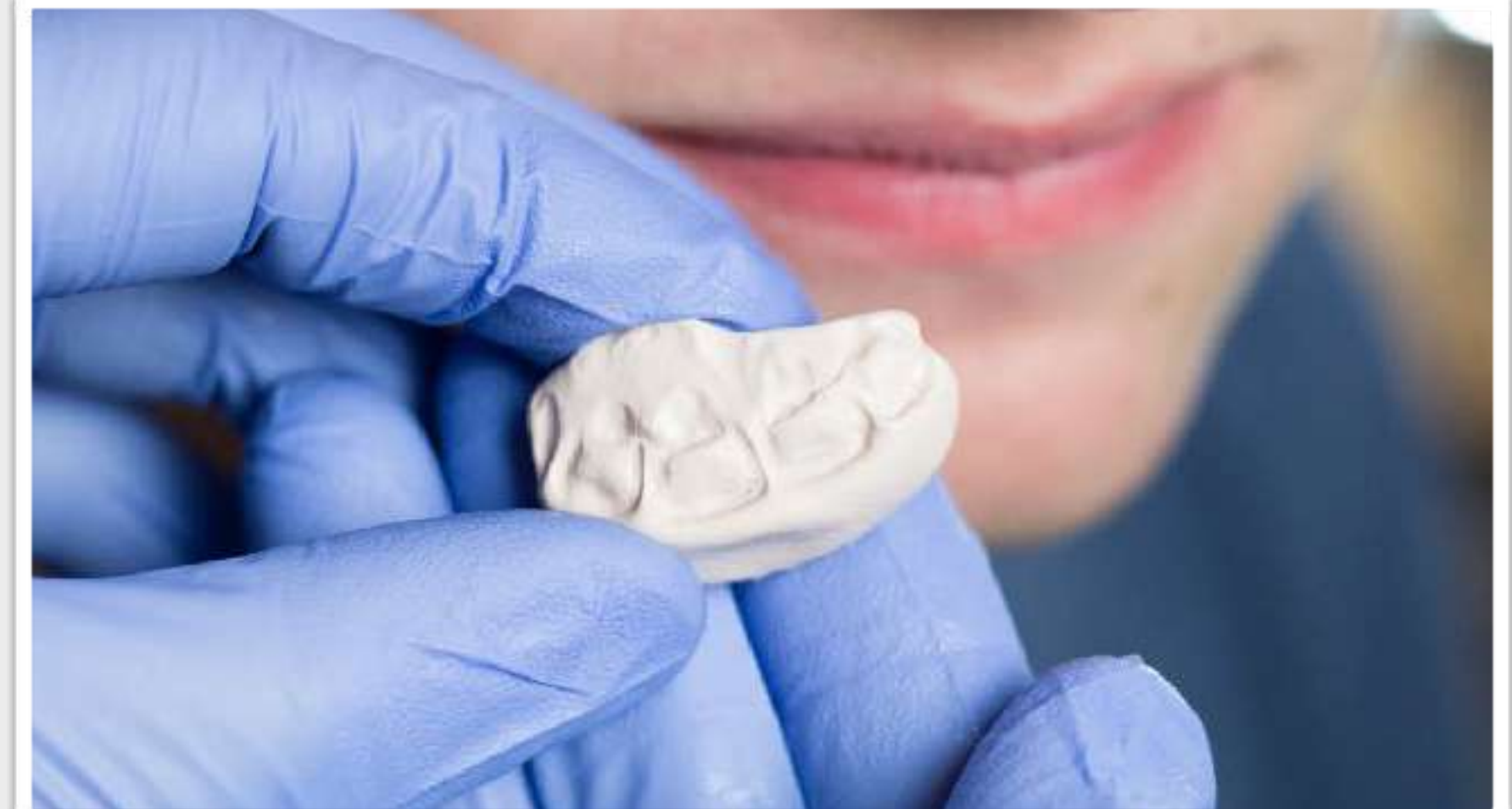


# Morning Repositioner





# Morning Repositioner





# At the end of the Appointment

- Confirm that the Informed Consent Form was already filled out.
- Review with the patient that there could be side effects, such as tooth movement and bite changes, and how to avoid these (“world’s greatest flosser,” and “check your bite before bed”). Tell them to call you should they notice any problems...not to wait till their next follow up.
- Explain again that you want the patient to use the “morning repositioner” at least weekly to make sure that the teeth and jaw position has not changed.
- Make sure that you have given the patient the appliance instructions.
- Set up a follow up appointment for 3 to 4 weeks out, AND explain to the patient that if they have any comfort issues arise that they are strongly encouraged to come back sooner than the scheduled appointment.
- Ideally, give the patient your cell phone number and let them know they can call you with questions.



Next Step...

FOLLOW-UP





# Goals of Follow Up Visits

- Make sure the patient is having no comfort issues with the appliance
- Confirm that the appliance is having a positive effect
  - Objective = Less reported snoring (by bed partner or by “Snore Lab” app)
  - Subjective = Patient reports feeling more rested





# Progress Report

- Have the patient fill out the progress report WHILE IN THE WAITING ROOM to make the best use of the dentist's time.
- Ideally, have an assistant review the progress report immediately as the patient is seated, and report to the dentist how things are going.
- If there are any comfort issues reported, and the assistant has been trained, have the assistant address the comfort issues.
- Make decisions regarding position changes based on the patient's report.

*Jamison Spencer*

Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Date: \_\_\_\_\_

1. How much are you wearing the oral appliance? ☐ all night ☐ every night ☐ hours per night: 1 2 3 4 5 6 7 8 9  
☐ other: \_\_\_\_\_

2. Are you using CPAP with your appliance? ☐ Yes ☐ No ☐ Sometimes

3. Epworth Sleepiness Scale - Use the following scale to choose the most appropriate number for the likeliness of dozing in each situation: 0-never, 1-slight chance, 2-moderate chance, 3-high chance

Situation	Chance of Dozing	Situation	Chance of Dozing
Sitting and reading	_____	As a passenger in a car for an hour without a break	_____
Watching TV	_____	Lying down to rest in the afternoon when circumstances permit	_____
Sitting and talking to someone	_____	Sitting quietly after a lunch without alcohol	_____
Sitting inactive in a public place (e.g.: a theater or a meeting)	_____	In a car while stopped for a few minutes in traffic	_____
		Total:	_____

4. How does your bed partner rate your snoring? ☐ no snoring ☐ better ☐ no change ☐ worse ☐ N/A

5. Do you feel that your current jaw position is effective? ☐ Yes ☐ No Do you feel more rested? ☐ Yes ☐ No

6. How is the appliance fitting? ☐ just right ☐ too tight ☐ too loose ☐ other: \_\_\_\_\_

7. Are you experiencing any of these side effects? ☐ jaw pain ☐ tooth movement ☐ tooth pain  
☐ other symptoms: \_\_\_\_\_

8. Do you like your appliance? ☐ Yes ☐ No Is there anything you would change? ☐ Yes ☐ No  
If yes, what? \_\_\_\_\_

9. Any comments, questions, and/or notes: \_\_\_\_\_

Patient's Signature: \_\_\_\_\_

**For office use only**

Not Compliant	Progress:	moderate	slow	flare-up	Indicated:	Follow up PSG	Current position:
	excellent good	steady minimal	stable	initial continue		Change in position New appliance Repair	

Doctor Time with Patient: 10 min. \_\_\_\_ 15 min. \_\_\_\_ 25 min. \_\_\_\_ 40 min. \_\_\_\_

Notes: \_\_\_\_\_

Follow up: 1 2 3 4 5 6 2-months 6-months F/U PSG Final Pt will call: \_\_\_\_\_ Other: \_\_\_\_\_

\_\_\_\_\_  
(Staff)

\_\_\_\_\_  
Doctor Signature



# Deciding to Change the Position

- Reasons to move the appliance forward:
  - Patient reports they are still snoring
  - Patient reports they are not feeling rested
  - Patient reports “jaw pain” AND they are still snoring

Jamison Spencer

Lane & Associates  
SLEEP PROGRESS REPORT

Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Date: \_\_\_\_\_

1. How much are you wearing the oral appliance? ☐ all night ☐ every night ☐ hours per night: 1 2 3 4 5 6 7 8 9  
☐ other: \_\_\_\_\_

2. Are you using CPAP with your appliance? ☐ Yes ☐ No ☐ Sometimes

3. Epworth Sleepiness Scale - Use the following scale to choose the most appropriate number for the likeliness of dozing in each situation: 0-never, 1-slight chance, 2-moderate chance, 3-high chance

Situation	Chance of Dozing	Situation	Chance of Dozing
Sitting and reading	_____	As a passenger in a car for an hour without a break	_____
Watching TV	_____	Lying down to rest in the afternoon when circumstances permit	_____
Sitting and talking to someone	_____	Sitting quietly after a lunch without alcohol	_____
Sitting inactive in a public place (e.g.: a theater or a meeting)	_____	In a car while stopped for a few minutes in traffic	_____
		Total:	_____

4. How does your bed partner rate your snoring? ☐ no snoring ☐ better ☐ no change ☐ worse ☐ N/A

5. Do you feel that your current jaw position is effective? ☐ Yes ☐ No Do you feel more rested? ☐ Yes ☐ No

6. How is the appliance fitting? ☐ just right ☐ too tight ☐ too loose ☐ other: \_\_\_\_\_

7. Are you experiencing any of these side effects? ☐ jaw pain ☐ tooth movement ☐ tooth pain  
☐ other symptoms: \_\_\_\_\_

8. Do you like your appliance? ☐ Yes ☐ No Is there anything you would change? ☐ Yes ☐ No  
If yes, what? \_\_\_\_\_

9. Any comments, questions, and/or notes: \_\_\_\_\_

Patient's Signature: \_\_\_\_\_

For office use only

Not Compliant	Progress:	moderate	slow	flare-up	Indicated:	Follow up PSG	Current position:
	excellent good	steady minimal	stable continue	initial			

Doctor Time with Patient:

10 min. \_\_\_\_\_ 15 min. \_\_\_\_\_ 25 min. \_\_\_\_\_ 40 min. \_\_\_\_\_

Notes: \_\_\_\_\_

Follow up: 1 2 3 4 5 6 2-months 6-months F/U PSG Final Pt will call: \_\_\_\_\_ Other: \_\_\_\_\_

(Staff)

Doctor Signature



# Deciding to Change the Position

- Reasons to move the appliance **backward**:
  - Patient reports they are no longer snoring AND
  - Patient reports they are feeling rested AND
  - Patient reports “jaw pain”

Jamison Spencer

Lane & Associates  
SLEEP PROGRESS REPORT

Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Date: \_\_\_\_\_

1. How much are you wearing the oral appliance? ☐ all night ☐ every night ☐ hours per night: 1 2 3 4 5 6 7 8 9  
☐ other: \_\_\_\_\_

2. Are you using CPAP with your appliance? ☐ Yes ☐ No ☐ Sometimes

3. **Epworth Sleepiness Scale** - Use the following scale to choose the most appropriate number for the likeliness of dozing in each situation: 0-never, 1-slight chance, 2-moderate chance, 3-high chance

Situation	Chance of Dozing	Situation	Chance of Dozing
Sitting and reading	_____	As a passenger in a car for an hour without a break	_____
Watching TV	_____	Lying down to rest in the afternoon when circumstances permit	_____
Sitting and talking to someone	_____	Sitting quietly after a lunch without alcohol	_____
Sitting inactive in a public place (e.g.: a theater or a meeting)	_____	In a car while stopped for a few minutes in traffic	_____
		Total:	_____

4. How does your bed partner rate your snoring? ☐ no snoring ☐ better ☐ no change ☐ worse ☐ N/A

5. Do you feel that your current jaw position is effective? ☐ Yes ☐ No Do you feel more rested? ☐ Yes ☐ No

6. How is the appliance fitting? ☐ just right ☐ too tight ☐ too loose ☐ other: \_\_\_\_\_

7. Are you experiencing any of these side effects? ☐ jaw pain ☐ tooth movement ☐ tooth pain  
☐ other symptoms: \_\_\_\_\_

8. Do you like your appliance? ☐ Yes ☐ No Is there anything you would change? ☐ Yes ☐ No

If yes, what? \_\_\_\_\_

9. Any comments, questions, and/or notes: \_\_\_\_\_

Patient's Signature: \_\_\_\_\_

**For office use only**

Not Compliant	<u>Progress:</u> excellent	moderate	slow	flare-up	<u>Indicated:</u> Change in position	Follow up PSG	Current position:
	good	steady	stable	initial	New appliance	Oximeter	_____
		minimal		continue	Repair	Medibyte	New position:
						Reline	_____

Doctor Time with Patient: 10 min. \_\_\_\_ 15 min. \_\_\_\_ 25 min. \_\_\_\_ 40 min. \_\_\_\_

Notes: \_\_\_\_\_

Follow up: 1 2 3 4 5 6 2-months 6-months F/U PSG Final Pt will call: \_\_\_\_\_ Other: \_\_\_\_\_

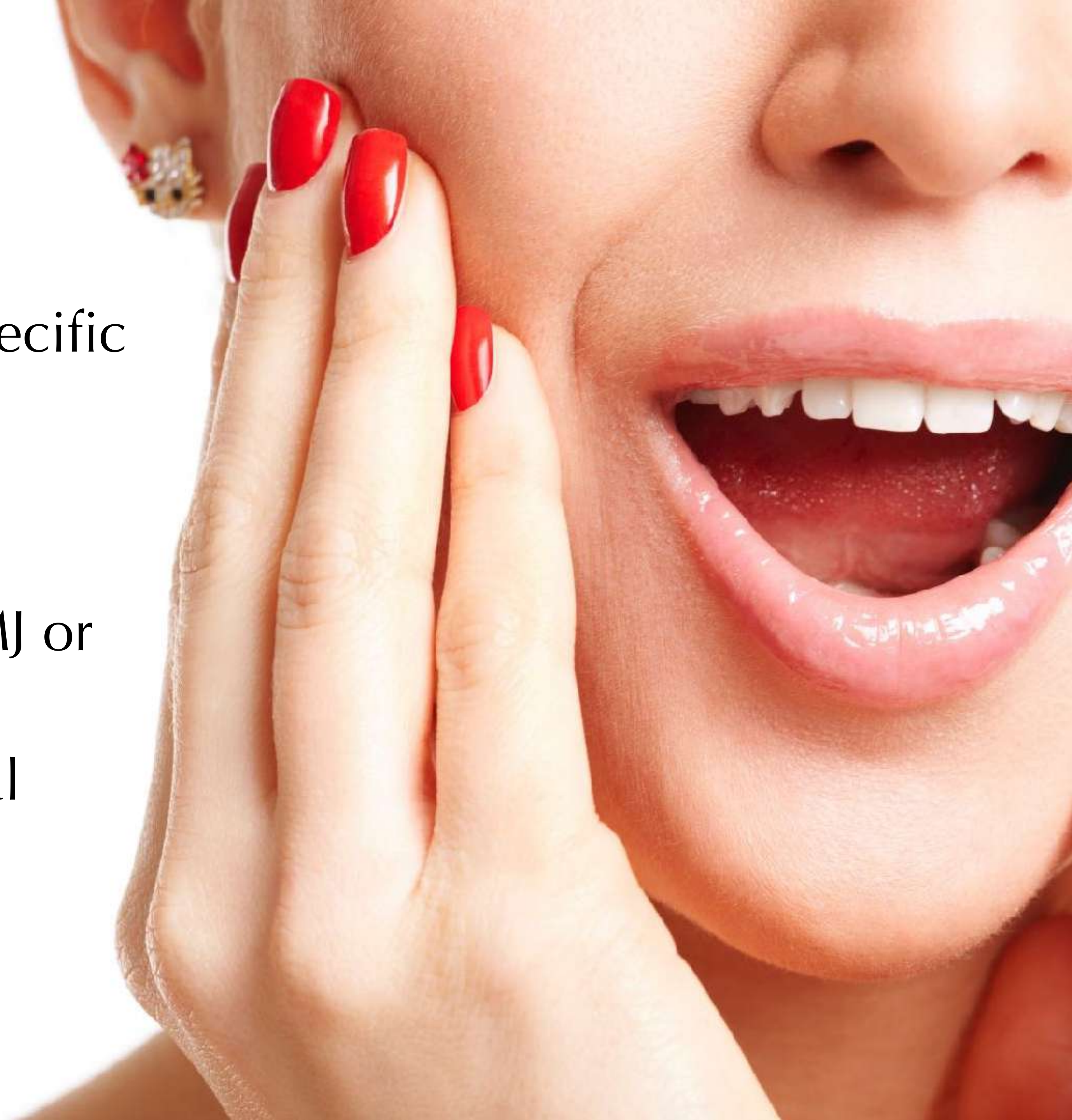
\_\_\_\_\_  
(Staff)

\_\_\_\_\_  
Doctor Signature



# “Jaw Pain”

- First, figure out where the pain is coming from. “Jaw pain” is not specific enough.
- Have the patient point with ONE FINGER to where the pain is
- Usually it will either be in the TMJ or the Masseter
- Usually the pain will be unilateral





# Non Intuitive Approach to “Jaw Pain”

- Oral appliances are often NOT immediately effective in the initial position
- As such, the patient may FIGHT the appliance in order to breathe (i.e. they may clench/grind their teeth or contract their muscles of mastication and/or thrust their jaw)
- If jaw pain due to a lack of a patent airway is suspected, ask the patient:
  - Are you still snoring?
  - How are you sleeping?
- If the patient is still snoring and/or not sleeping well THE POSITION WILL BE MOVED FORWARD





# Pain in the TMJ

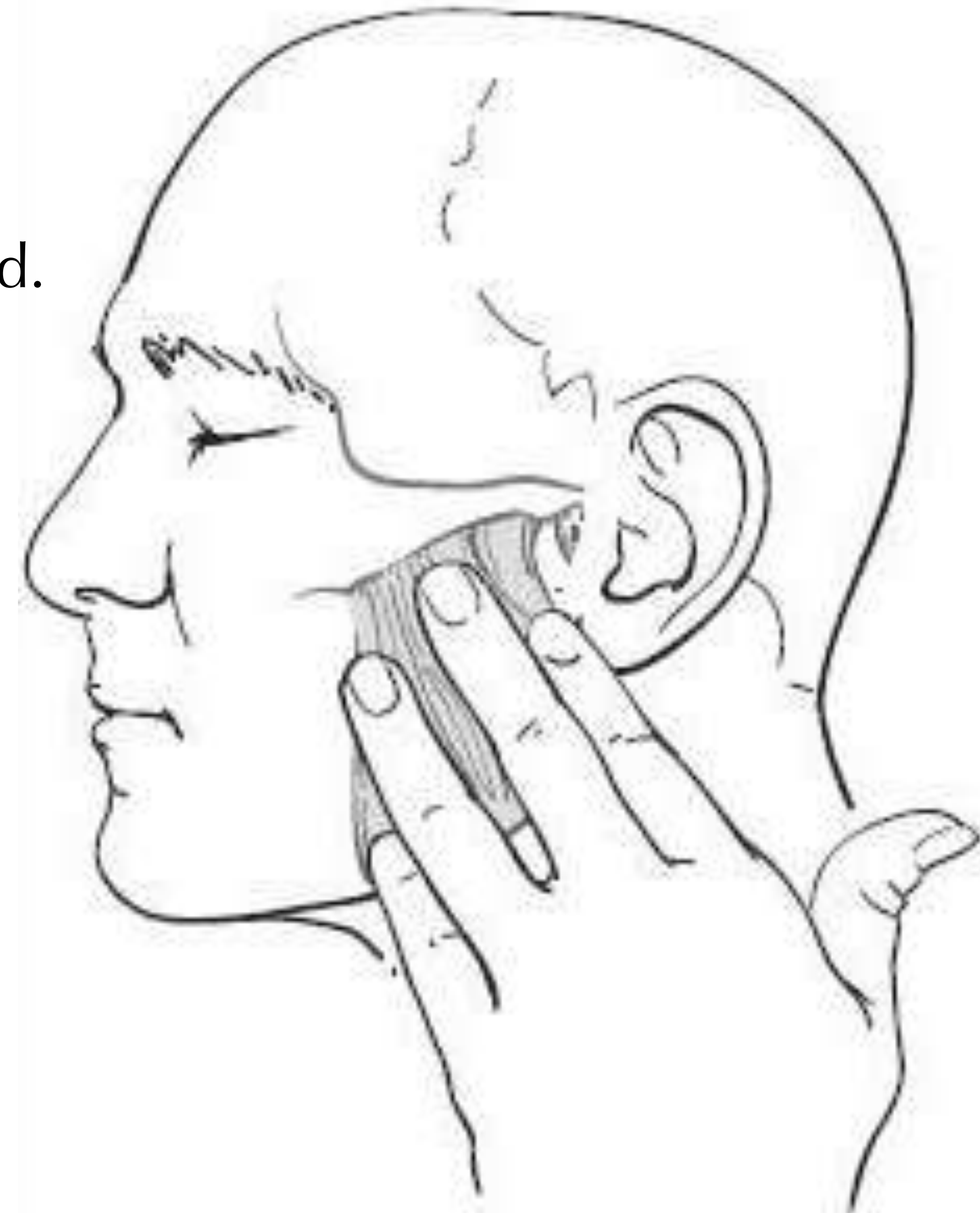
- Usually pain in the TMJ is due to UNDER or OVER protrusion.
- Further protrusion is indicated when:
  - The patient reports snoring is not improved, and
  - The patient reports they are not feeling more rested
- Reduced protrusion is indicated when:
  - The patient reports snoring IS improved, and
  - The patient reports that they ARE feeling more rested





# Pain in the Masseter

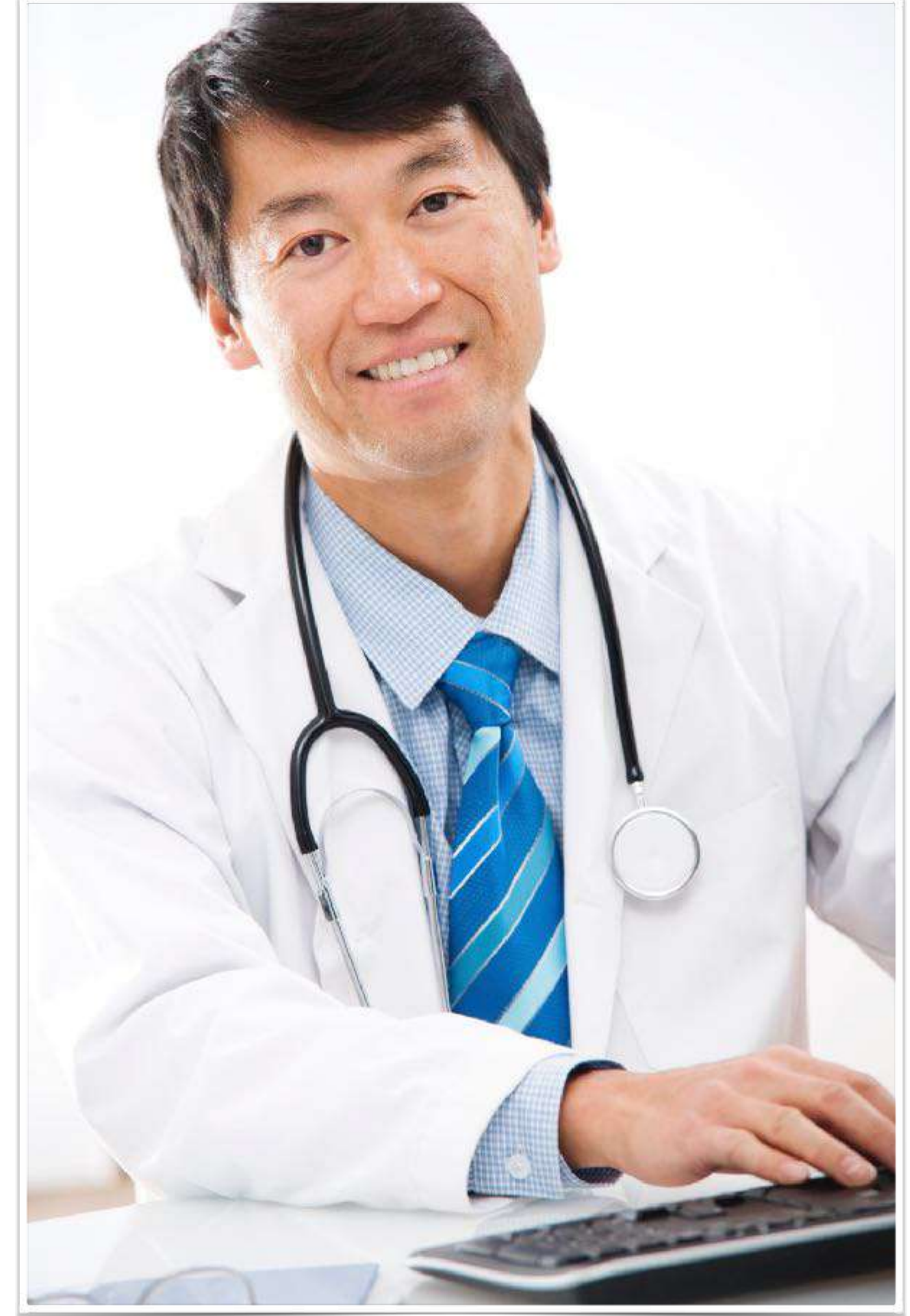
- Usually pain in the Masseter is due to too much vertical, lack of posterior support and/or uneven posterior support.
  - Check for uneven posterior contact and adjust if needed.
  - If posterior contact is even, consider reducing the vertical.
- Muscle pain may also be due to the patient “fighting the appliance” due to a lack of a patent airway.
- Further protrusion is indicated when:
  - The patient reports snoring is not improved, and
  - The patient reports they are not feeling more rested
- Reduced protrusion is indicated when:
  - The patient reports snoring IS improved, and
  - The patient reports that they ARE feeling more rested





# Referring the Patient Back to the Prescribing MD

- It is CRITICAL that the patient be referred back to the prescribing MD for consideration of objective follow up
- The patient is ready to be “referred back” to the prescribing MD when:
  - They report that their snoring is significantly improved, **and**
  - They report that they feel more rested





# Referring the Patient Back to the Prescribing MD

- When you believe the patient is ready to be referred back to the prescribing MD, send the MD:
- The most recent “Sleep Progress Report”
- The completed “Oral Appliance Titration Prescription Form”
- Includes a letter to the prescribing MD, letting them know the patient is being referred back to them “for consideration of objective follow up with titration of the oral appliance.”

Jamison Spencer

Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Date: \_\_\_\_\_

1. How much are you wearing the oral appliance? ☐ all night ☐ every night ☐ hours per night: 1 2 3 4 5 6 7 8 9  
☐ other: \_\_\_\_\_

2. Are you using CPAP with your appliance? ☐ Yes ☐ No ☐ Sometimes

3. Epworth Sleepiness Scale - Use the following scale to choose the most appropriate number for the likelihood of dozing in each situation: 0-never, 1-slight chance, 2-moderate chance, 3-high chance

Situation	Chance of Dozing	Situation	Chance of Dozing
Sitting and reading	_____	As a passenger in a car for an hour without a break	_____
Watching TV	_____	Lying down to rest in the afternoon when circumstances permit	_____
Sitting and talking to someone	_____	Sitting quietly after a lunch without alcohol	_____
Sitting inactive in a public place (e.g., a theater or a meeting)	_____	In a car while stopped for a few minutes in traffic	_____
Total: _____			

4. How does your bed partner rate your snoring? ☐ no snoring ☐ better ☐ no change ☐ worse ☐ N/A

5. Do you feel that your current jaw position is effective? ☐ Yes ☐ No Do you feel more rested? ☐ Yes ☐ No

6. How is the appliance fitting? ☐ just right ☐ too tight ☐ too loose ☐ other: \_\_\_\_\_

7. Are you experiencing any of these side effects? ☐ jaw pain ☐ tooth movement ☐ tooth pain  
☐ other symptoms: \_\_\_\_\_

8. Do you like your appliance? ☐ Yes ☐ No Is there anything you would change? ☐ Yes ☐ No  
If yes, what? \_\_\_\_\_

9. Any comments, questions, and/or notes: \_\_\_\_\_

Patient's Signature: \_\_\_\_\_

For office use only

Not Compliant	Progress: excellent good	moderate steady minimal	slow stable	flare-up initial continue

Doctor Time with Patient: 10 min. \_\_\_\_\_ 15 min. \_\_\_\_\_

Notes: \_\_\_\_\_

Follow up: 1 2 3 4 5 6 2-months 6-months F/U PSC

(Staff)

Oral Appliance Titration Prescription Form

Date: \_\_\_\_\_ Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_

Appliance Type: ☐ LMN ☐ Dorsal ☐ Silent sleep

Initial Position/Record: \_\_\_\_\_

Initial Titration: \_\_\_\_\_

Second Titration: \_\_\_\_\_

Third Titration: \_\_\_\_\_

Fourth Titration: \_\_\_\_\_

\*Upon the initial titration there appears to be a trend of worsening of the AHI with further progression, take the appliance back to the initial position to finish the study.

Special Instructions/Comments: \_\_\_\_\_

\*\*Please contact Dr. Spencer at (513) 609-5774 if you have further questions.

☐ Patient's follow up letter will follow ☐ Patient's letter is attached



# Titration of the Oral Appliance in the Sleep Lab

- Most of the time the prescribing MD will want their patient to return for a follow up sleep study to determine if the appliance is working well.
- The “Oral Appliance Titration Prescription Form” gives them the information that they need. The sleep lab will already have information regarding how to adjust the appliances in general

**Oral Appliance Titration Prescription Form**

Date: \_\_\_\_\_ Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_

Appliance type: ☐ EMA ☐ Dorsal ☐ Silent Sleep

Initial Position/Band: \_\_\_\_\_

Titration sequence:

First titration \_\_\_\_\_

Second titration \_\_\_\_\_

Third titration\* \_\_\_\_\_

Fourth titration \_\_\_\_\_

\*If on the third titration there appears to be a trend of worsening of the AHI with further protrusion, take the appliance back to the initial position to finish the study.

Special Instructions/Precautions: \_\_\_\_\_

\_\_\_\_\_

\*\*Please contact Dr. Spencer at (919) 605-5770 if you have further questions.

☐ Patient's follow up letter will follow ☐ Patient's letter is attached

Dr. Lane and Associates Family Dentistry, 877 LANE DDS (526-3337), info@lanedds.com

*Jamison Spencer*





# Then What?

- Send a letter to the prescribing MD, explaining that the patient is doing well (based on information from the follow up form), and is ready to be “referred back to their office for consideration of objective measurement of the efficacy of the oral appliance with possible titration in the sleep lab.” The “Titration Prescription” form will be attached to this letter.
- At this point the MD will either decide to get a follow up sleep study, or not. This is between the patient and their MD. You should ALWAYS refer patients back to the prescribing MD to have this conversation.



Next Step...  
“Final” Follow  
UP





# Placing the Patient on Recall

- A patient is ready to be placed on recall when:
  - They have had a follow up sleep study (in lab or home) and the most effective position for the appliance was found.
  - The patient's MD decided not to have a follow up sleep study and it is believed that the current position is effective.
  - The patient refuses to return to their MD for consideration of objective follow up.





# Placing the Patient on Recall

- Circle or underline how the patient is using their appliance. Options include:
  - “Every night, all night,” meaning they are expected to wear the appliance every night as their sole treatment of their sleep apnea.
  - “In conjunction with your CPAP,” meaning that the patient will be using their CPAP AND the oral appliance at the same time (“combination therapy”).
  - “As an adjunct to your use of CPAP,” meaning that the patient will usually use their CPAP, but will occasionally use the oral appliance when it is difficult for them to use CPAP, such as during travel.

## Continued Care Instructions for Sleep Patients

Long term success with oral appliance therapy depends on proper long term follow up and continuing care. While you are being placed on “recall” today, this does not mean that your treatment is complete. Unfortunately, for the vast majority of people, sleep apnea is not something that goes away without treatment. If you are not able to use CPAP and are not a candidate for surgery, you will need to use an oral appliance for the rest of your life or until new advancements provide further options for you.

You will need to continue wearing your oral appliance:

- Every night, all night
- In conjunction with your CPAP
- As an adjunct to your use of CPAP (such as during travel or camping)

Your appliance is made to the highest standard. However, it will wear down overtime and need to be repaired or replaced. Currently most insurance companies allow for replacement of an oral appliance used in the treatment of obstructive sleep apnea every 3 to 5 years. We encourage you to have your appliance replaced every 3 to 5 years if you are using it nightly. We are also able to “reline” certain appliances and we can usually repair cracks or even full breaks.

We encourage you to see your dentist for regular checkups, preferably every 6 months if you are wearing your oral appliance every night. Your dentist can help you to avoid side effects like tooth movement, teeth becoming loose, and other problems if you have regular checkups.

You will be appointed today for your annual follow-up. At that appointment we will evaluate how you are doing, clean and adjust your appliance, and discuss any needed changes to your therapy. You will be reappointed annually. Over time your symptoms and physiology will change and your optimal position or type of therapy may need to be adapted. We will evaluate this yearly as this is a lifelong treatment.

Side effects with oral appliance therapy are very common. These include jaw pain, movement of the teeth and bite changes. In your prior exams we explained that the best way to avoid these side effects is to floss daily so that you are aware if any of the spaces between your teeth start to change (get looser or tighter). It is also important to make sure that your bite returns to normal within a few hours of waking up every day. **It is imperative that you make us immediately aware of any side effects that you are experiencing.** Most side effects are minimal and do not affect function but some may. If dental side effects become a major problem for you, you may be advised to attempt to use CPAP again or to consider jaw surgery.

We look forward to treating you for years to come and hope that oral appliance therapy will be an effective treatment for your obstructive sleep apnea.

\_\_\_\_\_  
Patient Name

\_\_\_\_\_  
Patient Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Doctor Signature

\_\_\_\_\_  
Date

*Jamison Spencer*



# Placing the Patient on Recall

- Review with the patient that the appliance may be replaced, and usually paid for by their insurance, every 2 to 5 years.
- Encourage them to see their regular dentist for their scheduled check ups. If they are a your patient, ASK THEM TO BRING THEIR ORAL APPLIANCE TO ALL FUTURE DENTAL CHECK UPS.
- Review with the patient that tooth movement and jaw position changes can occur, and review with them how to avoid these things (floss daily and pay attention to how it feels, and check their occlusion every night and use their “morning repositioner”).
- Emphasize that at least annual follow up is CRITICAL to long term success and avoiding side effects.

*Jamison Spencer*

## Continued Care Instructions for Sleep Patients

Long term success with oral appliance therapy depends on proper long term follow up and continuing care. While you are being placed on “recall” today, this does not mean that your treatment is complete. Unfortunately, for the vast majority of people, sleep apnea is not something that goes away without treatment. If you are not able to use CPAP and are not a candidate for surgery, you will need to use an oral appliance for the rest of your life or until new advancements provide further options for you.

You will need to continue wearing your oral appliance:

- o Every night, all night
- o In conjunction with your CPAP
- o As an adjunct to your use of CPAP (such as during travel or camping)

Your appliance is made to the highest standard. However, it will wear down overtime and need to be repaired or replaced. Currently most insurance companies allow for replacement of an oral appliance used in the treatment of obstructive sleep apnea every 3 to 5 years. We encourage you to have your appliance replaced every 3 to 5 years if you are using it nightly. We are also able to “reline” certain appliances and we can usually repair cracks or even full breaks.

We encourage you to see your dentist for regular checkups, preferably every 6 months if you are wearing your oral appliance every night. Your dentist can help you to avoid side effects like tooth movement, teeth becoming loose, and other problems if you have regular checkups.

You will be appointed today for your annual follow-up. At that appointment we will evaluate how you are doing, clean and adjust your appliance, and discuss any needed changes to your therapy. You will be reappointed annually. Over time your symptoms and physiology will change and your optimal position or type of therapy may need to be adapted. We will evaluate this yearly as this is a lifelong treatment.

Side effects with oral appliance therapy are very common. These include jaw pain, movement of the teeth and bite changes. In your prior exams we explained that the best way to avoid these side effects is to floss daily so that you are aware if any of the spaces between your teeth start to change (get looser or tighter). It is also important to make sure that your bite returns to normal within a few hours of waking up every day. **It is imperative that you make us immediately aware of any side effects that you are experiencing.** Most side effects are minimal and do not affect function but some may. If dental side effects become a major problem for you, you may be advised to attempt to use CPAP again or to consider jaw surgery.

We look forward to treating you for years to come and hope that oral appliance therapy will be an effective treatment for your obstructive sleep apnea.

\_\_\_\_\_  
Patient Name

\_\_\_\_\_  
Patient Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Doctor Signature

\_\_\_\_\_  
Date





# Follow Up is Forever

- Obstructive sleep apnea does not tend to go away on its own.
- Most patients will require LIFE LONG treatment.
- If you do your job right, they will return to your office again and again for new appliances (paid for by insurance every 2 to 5 years!)



*Jamison Spencer*



# Regular/Annual Follow Up

- The patient will fill out the Sleep Progress Report
- Any issues will be addressed
- Evaluate for any occlusal changes
- Clean and evaluate the appliance for any breakdown
- If the appliance was fit 2 or more years ago, discuss with the patient if another appliance is desired (perhaps to have as a spare, or to keep one in their overnight bag or at a different location such as a vacation home). If the patient is interested in a new appliance, get their information to do an insurance pre-authorization...starting the process all over!

Jamison Spencer

Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Date: \_\_\_\_\_

1. How much are you wearing the oral appliance? ☐ all night ☐ every night ☐ hours per night: 1 2 3 4 5 6 7 8 9  
☐ other: \_\_\_\_\_

2. Are you using CPAP with your appliance? ☐ Yes ☐ No ☐ Sometimes

3. Epworth Sleepiness Scale - Use the following scale to choose the most appropriate number for the likeliness of dozing in each situation: 0-never, 1-slight chance, 2-moderate chance, 3-high chance

Situation	Chance of Dozing	Situation	Chance of Dozing
Sitting and reading	_____	As a passenger in a car for an hour without a break	_____
Watching TV	_____	Lying down to rest in the afternoon when circumstances permit	_____
Sitting and talking to someone	_____	Sitting quietly after a lunch without alcohol	_____
Sitting inactive in a public place (e.g.: a theater or a meeting)	_____	In a car while stopped for a few minutes in traffic	_____
Total: _____			

4. How does your bed partner rate your snoring? ☐ no snoring ☐ better ☐ no change ☐ worse ☐ N/A

5. Do you feel that your current jaw position is effective? ☐ Yes ☐ No Do you feel more rested? ☐ Yes ☐ No

6. How is the appliance fitting? ☐ just right ☐ too tight ☐ too loose ☐ other: \_\_\_\_\_

7. Are you experiencing any of these side effects? ☐ jaw pain ☐ tooth movement ☐ tooth pain  
☐ other symptoms: \_\_\_\_\_

8. Do you like your appliance? ☐ Yes ☐ No Is there anything you would change? ☐ Yes ☐ No  
If yes, what? \_\_\_\_\_

9. Any comments, questions, and/or notes: \_\_\_\_\_

Patient's Signature: \_\_\_\_\_

For office use only

Not Compliant	Progress: excellent good	moderate steady minimal	slow stable	flare-up initial continue	Indicated: Change in position New appliance Repair	Follow up PSG Oximeter Medibyte Reline	Current position: _____ New position: _____
Doctor Time with Patient: 10 min. _____ 15 min. _____ 25 min. _____ 40 min. _____							
Notes: _____							
Follow up: 1 2 3 4 5 6 2-months 6-months F/U PSG Final Pt will call: _____ Other: _____							
(Staff)					Doctor Signature		





**Thank you**

*Doctor*

*For saving my life  
I'm very grateful*

*God bless*





Knowledge isn't power  
until it is applied.

Dale Carnegie

 quote fancy

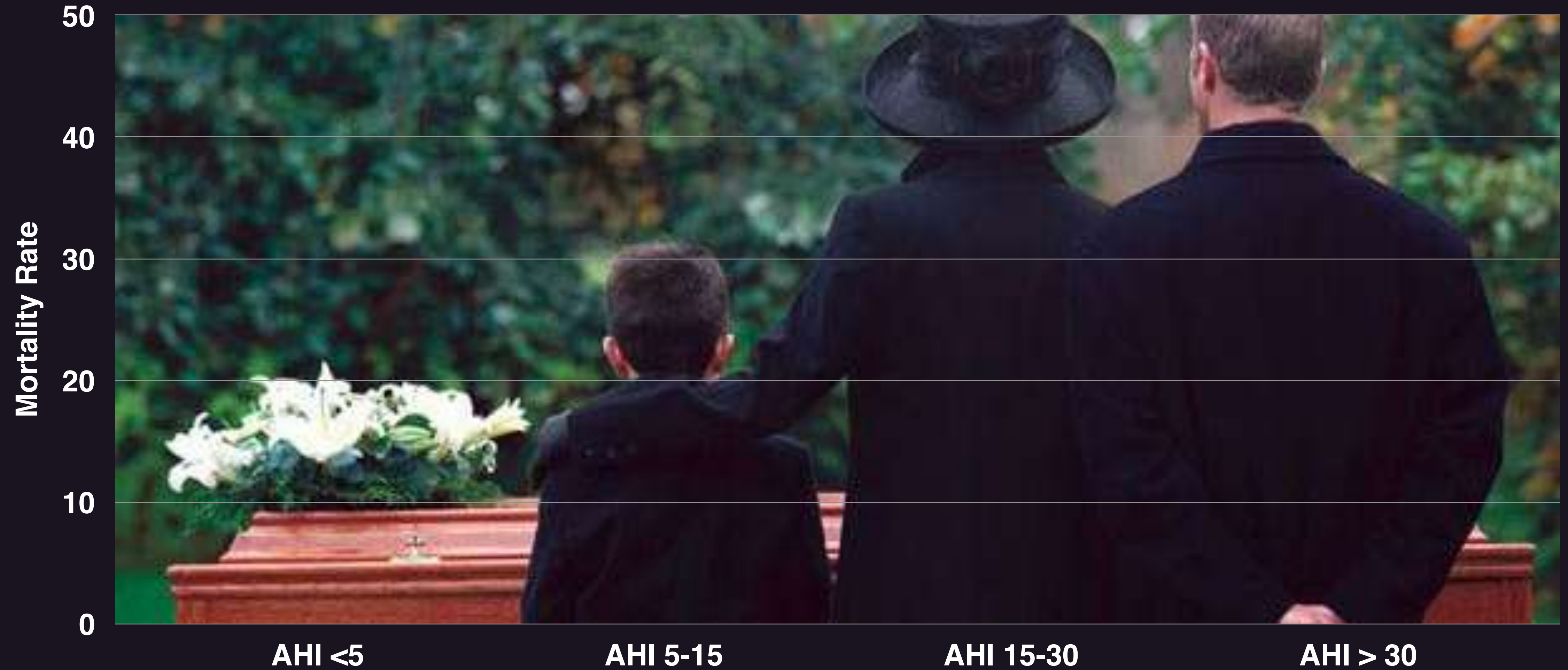


5 Years

10 Years

15 Years

18 Years



*Sleep Disordered Breathing and  
Mortality: Eighteen-Year Follow-up  
of the Wisconsin Sleep Cohort:  
SLEEP, Vol. 31, No. 8, 2008*

*Jamison Spencer*



















# Thank You!

Jamison R. Spencer, DMD, MS

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